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Survey Forms Manual

Survey Interview Form and Parent/Caregiver Rating Form

Vineland-II

Vineland Adaptive Behavior Scales

Second Edition

Sara S. Sparrow Domenic V. Cicchetti David A. Balla

A revision of the *Vineland Social Maturity Scale* by Edgar A. Doll

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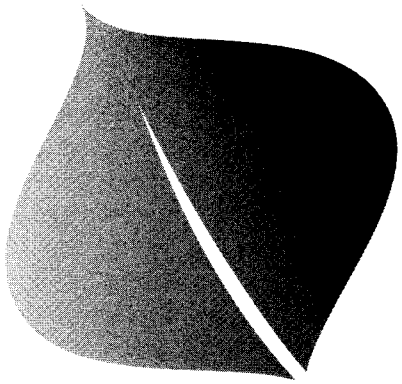
About the Authors



Sara S. Sparrow, PhD

Dr. Sara S. Sparrow is the professor emerita and Senior Research Scientist at Yale University's Child Study Center and at the Center for the Psychology of Abilities, Competencies, and Expertise (PACE Center) at Yale's Department of Psychology. She graduated from the University of Florida with a master's degree in speech pathology and a doctorate in clinical psychology and neuropsychology.

From 1975 to 2002, Dr. Sparrow was the chief of psychology at Yale Child Study Center and currently serves on the faculty of the PACE Center at Yale's Department of Psychology. She also holds a professorship in the Department of Psychology at the University of Windsor, in Windsor, Ontario, Canada. She is the author of more than 100 articles and book chapters in the fields of psychological assessment and developmental disabilities, and is the senior author of the *Vineland Adaptive Behavior Scales* (Vineland ABS), one of the most widely used psychological instruments available. She is also coeditor (along with Drs. Ami Klin and Fred Volkmar) of a book on Asperger's syndrome. Dr. Sparrow's main research interests involve the assessment of adaptive behavior, child neuropsychology, and developmental disabilities. These interests support her current research in autism spectrum disorders. She is also working with a team of scientists from the PACE Center to investigate the incidence of mental retardation and learning disabilities in Zambia.

In addition, Dr. Sparrow has served on the Committee on Disability Determination for Mental Retardation, a committee of the National Research Council (NRC) of the National Academy of Sciences (NAS). She was also cofounder and coeditor of the *Journal of Child Neuropsychology* and received the Career Scientist Award from the American Academy of Mental Retardation (AAMR). She and her husband, Professor Domenic Cicchetti, share the first Scientific Achievement Award given by the Connecticut Psychological Association for the development and publication of the Vineland ABS. Dr. Sparrow is a Fellow in Divisions 12 (Clinical Psychology) and 33 (Mental Retardation and Developmental Disabilities) of the American Psychological Association (APA). At the time of publication of the *Vineland Adaptive Behavior Scales,* Second Edition (Vineland–II), she was also the president of APA Division 33.

Domenic V. Cicchetti, PhD

Dr. Domenic V. Cicchetti received his doctorate in social psychology with a minor in statistics from the University of Connecticut. He holds three academic positions at the Yale University School of Medicine: senior research scientist, senior biostatistician, and senior research psychologist. With a primary appointment at the Child Study Center, he also holds joint appointments in the Departments of Epidemiology and Public Health in Biometry and Psychiatry. He also holds professorships in the Department of Psychology at the University of Windsor, in Windsor, Ontario, Canada; and in the Department of Public and Mental Health at the Imperial College of Science, Technology, and Medicine, in London.

In addition to coauthoring the *Vineland Adaptive Behavior Scales*, Dr. Cicchetti has authored or coauthored more than 200 research publications in behavioral and biomedical research, computer science, and biostatistics. With his wife, Sara Sparrow, he shared the first Scientific Achievement Award given by the Connecticut Psychological Association for the development and publication of the *Vineland Adaptive Behavior Scales*. He also is a Fellow in APA Division 5 (Evaluation, Measurement, and Statistics); and in APA Division 33, Mental Retardation and Developmental Disorders.

Dr. Cicchetti is the author of a number of innovative statistical methodologies, primarily in the areas of reliability and validity assessment. He is further known internationally for his work in the development and assessment of psychometric properties, and the application of major clinical instruments in behavioral and biomedical research. A number of these clinical instruments are widely viewed as standards in the field. These clinical instruments cover a broad range of diagnostic areas in behavioral science and medicine

that include pediatricians' observations of a number of critical health problems in febrile children; school-age children's conceptual understanding of HIV/AIDS; child and adult defense mechanisms; child social and emotional disorders; child conduct disorders; dissociative disorders; personality changes subsequent to acute right- and left-hemisphere strokes in adult males; and, recently, a screener for detecting those at high risk for developing psychotic disorders. Dr. Cicchetti is currently collaborating on the development of a diagnostic screener for detecting children's autistic spectrum disorders. He also is the senior author of a recently published biostatistical text that provides a conceptual approach to the understanding of research design and data-analytic strategies, with an emphasis on the critical differentiation between statistical and clinical significance.

Dr. Cicchetti is also known for his seminal work on the reliability and validity of the peer review process in the scientific evaluation of journal and grant submissions. In February 2003, he was honored by the National Academies of Science for presenting his research findings and recommendations. These recommendations appear in the report *Strengthening Peer Review in Federal Agencies that Support Education Research,* a 2004 publication of the National Research Council Committee on Research in Education.

Dr. Cicchetti enjoys gourmet cooking, wine tasting, and pastel and acrylic painting. He is the author of two articles on the design, reliability, and validity of blind wine tasting, scheduled to be published in the *Journal of Wine Research.*

Vineland–II User Qualifications

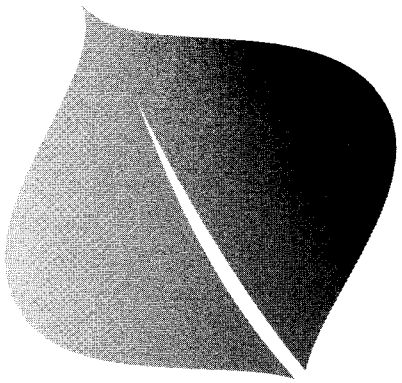
The Vineland–II is a clinical instrument whose administration requires the expertise gained through graduate-level training in psychology or social work as well as experience in individual assessment and test interpretation. Competent users have completed recognized graduate training programs in psychology, with appropriate coursework and supervised practical experience in the administration and interpretation of clinical assessment instruments. They are expected to understand theory and research in such areas as tests and measurement, human development, special education, and educational psychology. Examiners should also have training in interview techniques and experience in the administration and interpretation of adaptive behavior scales.

All examiners must adhere to the administration procedures followed during standardization. This requires even the most qualified and experienced examiners to read and study the Vineland–II Survey Forms Manual before attempting to administer the assessment instrument. Administration of the Survey forms in practice sessions is recommended.

Two broad groups of test users are discussed in the American Psychological Association's (APA) guidelines on test user qualifications (Turner, DeMers, Fox, & Reed, 2001): (a) professionals with sufficient training and experience to competently administer and score psychological tests under supervision, and (b) professionals who are qualified to interpret and report results of psychological tests. The authors and the publisher endorse these guidelines, and adhere to the blend of knowledge, skills, abilities, training, and experience that APA considers desirable for responsible use of psychological tests (Turner et al., 2001).

Because of the wide variability across jurisdictions in certification requirements and the use of professional titles, it is not possible to determine solely by title, licensure, or certification who is qualified to use the Vineland–II. Consistent with the principles presented in the *Standards for Educational and Psychological Testing* (American Educational Research Association [AERA], American Psychological Association [APA], & National Council on Measurement in Education [NCME], 1999), each individual practitioner must decide whether his or her formal academic training and supervised experience provide the necessary background and knowledge to use and interpret the Vineland–II appropriately. A variety of other professionally trained or certified staff (e.g., psychometrists, educational diagnosticians, clinical social workers, psychiatrists, and pediatricians) might have received the necessary formal academic training and supervised experience to use instruments like the Vineland–II.

Acknowledgments



The revision of a widely used assessment instrument requires the smooth interplay of a superbly talented, highly creative team of dedicated people. Clearly, we, as the authors of the *Vineland Adaptive Behavior Scales,* Second Edition (Vineland–II), have been fortunate enough to experience such a phenomenon with AGS Publishing. There are many AGS friends and colleagues who have contributed mightily to the cause. First, Linda Lynch, Senior Project Manager, needs to be cited for her unstinting devotion to scholarship, creative talent, and continuity of the inner workings of the Vineland–II. She not only has kept the Vineland–II vessel afloat but also has done her utmost to render the revision a voyage with "smooth sailing." An instrument that measures adaptive behavior is quite different from most other widely used and more traditional assessment tools, and Linda has shown a remarkable ability to make the content and structure of an instrument such as the Vineland second nature to her, and to apply that understanding to guiding the revision. Her amassing of the knowledge necessary to fully understand first the anatomy, then the complex, clinical inner core of Vineland–II, has been impressive indeed. We also owe Linda an enormous debt of gratitude for her warm, cooperative working style and her sense of humor.

Second, Dr. John Bielinski, Director of Test Development, was an incredible partner in the revision. Although psychometrics was his major role, his many other contributions were as important. John had a talent for bringing informed knowledge of child development to the data analyses, making them more relevant to the measurement tasks and their applications. In addition, his application of Item Response Theory (IRT) as a precursor and reasonable indicator of reliability assessment is most impressive.

Third, Dr. Marcia Andberg was an unbelievable force behind the creative thinking in the early years of the revision. Her deep knowledge and understanding of the true essence of the Vineland helped us gather and incorporate into the Vineland–II the extensive clinical and research knowledge of those who have used the Vineland ABS. Through her role as a consultant in the later stages of the revision, she again contributed her expertise, enthusiasm, and energy, at a very crucial time.

Fourth, Dr. Mark Daniel, Executive Director of Test Development, clearly demonstrated why "quality control" falls in his jurisdiction in test development at AGS Publishing. During the final months of the revision, his analytical thinking, deep insight and knowledge, and his commitment to a quality product helped to guide us all to a higher level of accomplishment. His psychometric expertise was also critical in the norms development process.

We would also like to thank Kevin Brueggeman, president of AGS, and Mark Caulfield, Vice President of Assessments and Testing Services, for their strong and sustained support, and their understanding of the enormity of the task of the revision. We would also like to express our appreciation to consultant Dr. Mark Maruish, who came in to help the team with the stages of software development.

Many other individuals at AGS Publishing participated greatly in the Vineland–II project. Marshall Dahl directed the efforts of a hardworking research team in designing and carrying out the complex data analyses and norms development process. Drs. Haijiang Kuang and Chow-Hong Lin, along with Janie Billings, developed and implemented data analysis procedures. Scott Overgaard supervised the data management procedures, ensuring that all information went through rigorous checks. Renee Vraa recruited and supported the network of hundreds of tryout and standardization site coordinators and examiners. Megan Clark and Sharon Johnson helped review each standardization protocol, contributing to the quality control measures. Completion of the Vineland–II ASSIST would not have been possible without the efforts of Kirby Cobb, David Weber, and the entire software development team. Laura Henrichsen, with the help of Peggy Vlahos, Diane LeTendre, and

Marie Mattson, designed and produced the array of high-quality components that make up the Vineland–II. Nancy Condon demonstrated strong leadership in resource allocation at all phases of materials design and production. Monica Abress, Ann Olson, Meg Bratsch, and Megan Clark helped edit this manual. Julie Cox aided in project management of the final Vineland–II materials. The efforts of all contributing AGS Publishing staff are deeply appreciated.

In addition to AGS Publishing staff, many friends and colleagues at Yale Child Study Center have contributed to the Vineland–II. Diane Goudreau, who has administered the Vineland ABS more often than probably anyone in the world, was exceedingly helpful throughout the revision process with her clinical expertise and her vast knowledge of the Vineland ABS, particularly with individuals with autism spectrum disorders. Drs. Ami Klin and Fred Volkmar were critical to our understanding of how the Vineland ABS contributed to understanding of children's adaptive functioning, particularly those with autism spectrum disorders. Alan and Nadeen Kaufman have long been supportive of the Vineland revision. It is impossible to name all the psychology faculty, research assistants, and fellows who, over the years at the Child Study Center, have influenced the revision with their many comments, suggestions and spirited inquiries. We thank them all!!

Dr. Alice Carter, a professor at the University of Massachusetts at Boston and a longtime Vineland ABS enthusiast, has made many suggestions for the revision based on her extensive clinical and research endeavors. Drs. Robin Morris (Georgia State University) and Jack Fletcher (University of Texas at Houston) have long been experts on the use of the Vineland ABS in both their research and clinical work and have kept us "on our toes" with suggestions for the revision.

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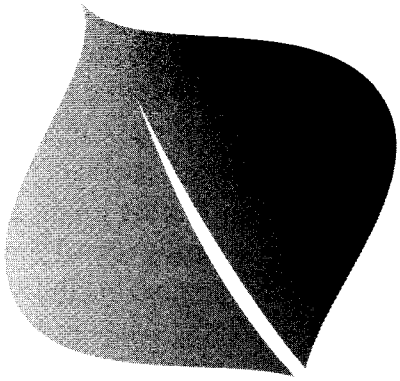

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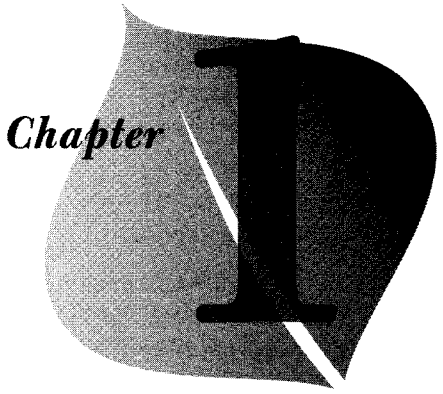
Introduction and Overview



The *Vineland Adaptive Behavior Scales,* Second Edition (Vineland–II), is an individually administered measure of adaptive behavior for ages birth through 90. The scales are available in three versions:

- Two Survey forms, the Survey Interview Form and the Parent/Caregiver Rating Form, assess adaptive behavior in the four broad domains of Communication, Daily Living Skills, Socialization, and Motor Skills, and include a Maladaptive Behavior Domain that assesses problem behaviors. The two forms differ only in method of administration (interview versus rating scale).
- The Expanded Interview Form offers a more comprehensive assessment of adaptive behavior within the four domains and provides a systematic basis for preparing individual educational, habilitative, and treatment programs.
- The Teacher Rating Form provides assessment of behaviors in the four domains but focuses on readily observable behaviors exhibited in a classroom setting and includes items related to basic academic functioning.

This manual explains how to administer, score, and interpret the two Survey forms, and describes the development, standardization, reliability, and validity of the forms. Equivalent information on the Expanded Interview Form and the Teacher Rating Form can be found in separate manuals.

The Vineland–II Survey forms represent a substantial revision of the *Vineland Adaptive Behavior Scales* (Vineland ABS; Sparrow, Balla, & Cicchetti, 1984). Because the age range of the Vineland–II scales has been expanded, new items have been added in each of the four domains and eleven subdomains to sample adaptive skills across the lifespan. In addition, items have been added in the birth through 3-year range to increase item density and to allow for greater differentiation during these early years of rapid development. The updating of current items and the inclusion of new items reflecting cultural changes and new research knowledge of developmental disabilities make the Vineland–II even more useful to clinicians when determining adaptive functioning for individuals of all ages.

Features of the Vineland–II that make it a particularly valuable instrument for adaptive behavior assessment include the following:

- The Vineland–II Survey forms norms are based on a large, representative sample of over 3,000 individuals.
- The Vineland–II Survey forms results are highly interpretable. Comparing the results on the Survey Interview Form or Parent/Caregiver Rating Form to the standardization sample gives a measure of the individual's overall level of adaptive functioning as well as his or her adaptive functioning in more distinct areas. The level of functioning in the domains and subdomains documents qualification for special programs and services, and the comparison of the individual's pattern of deficits with those found in different clinical groups supports diagnosis.
- The Vineland–II Survey forms provide normative scores at the subdomain level to allow for better understanding of an individual's strengths and weaknesses.
- The distinct adaptive domains and subdomains measured by the Vineland–II Survey forms are consistent with current research on adaptive behavior and correspond to the specifications identified by the American Association on Mental Retardation (AAMR, 2002) and the *Diagnostic and Statistical Manual of Mental Disorders,* Fourth Edition, Text Revision (*DSM–IV–TR,* American Psychiatric Association [APA], 2000).
- With increased item density at the early ages, the Vineland–II Survey forms provide a more complete picture of the part of the population undergoing the most rapid and dramatic developmental changes, thus

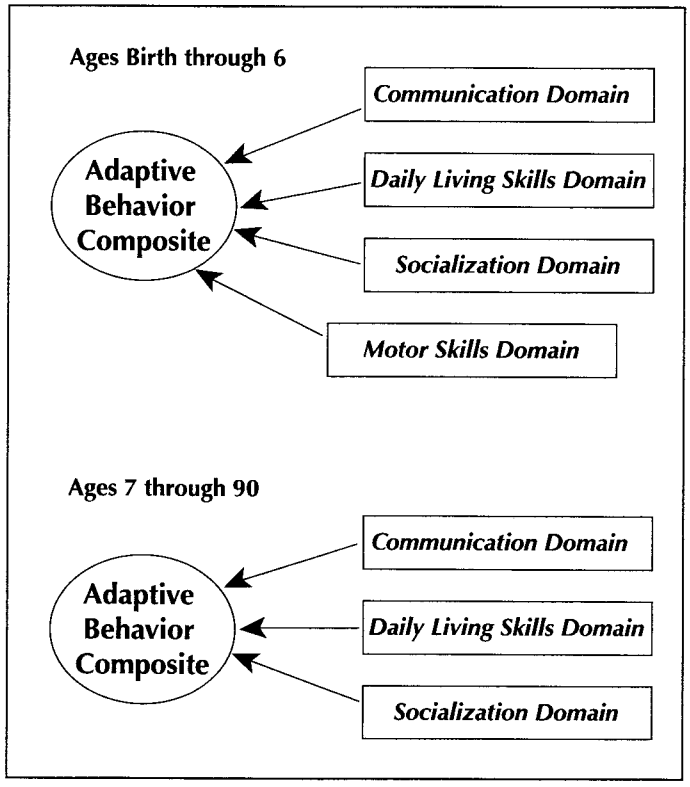
improving upon the ability of the Vineland ABS to identify developmental delays.

- The Vineland–II Survey forms' comprehensive content contributes to finer diagnostic distinction among individuals with significant limitations in adaptive functioning, such as those with mental retardation or autism spectrum disorders.
- Because of their expanded age range, the Vineland–II Survey forms can be used to identify strengths and weaknesses and age-related declines in the adaptive functioning of older individuals. Vineland–II results can help determine the need for supportive programs to aid in maintaining independent living.
- The Vineland–II Survey forms offer more flexible administration. Examiners can choose to administer the Parent/Caregiver Rating Form when a face-to-face interview is not practical or when the depth of information provided by the semistructured interview method is not needed. The Parent/Caregiver Rating Form is especially well suited for progress monitoring after an interview administration has been obtained.
- The Survey Interview Form features a new design intended to allow for more efficient semistructured interview technique. Items are listed in developmental order by subdomain rather than domain, and symbols are used to identify specific content areas within a subdomain. This organization helps examiners formulate general questions related to a given content area, and then locate and score all relevant items.
- The Vineland–II Survey forms have undergone extensive bias reviews and statistical analyses to ensure that individuals of either sex and from a variety of ethnic and socioeconomic backgrounds can be assessed with confidence.
- The Maladaptive Behavior Index of the Vineland–II groups maladaptive behaviors into Internalizing, Externalizing, and Other problem behaviors. Consistent with current research, these categories of problem behaviors are helpful in making clinical diagnoses.

Structure and Organization of the Vineland–II Survey Forms

The eleven Vineland–II subdomains are grouped into four domain composites: Communication, Daily Living Skills, Socialization, and Motor Skills. Within each domain, the subdomains yield *v*-scale scores that sum to yield the domain composite scores. As shown in **Figure 1.1,** the four domain composite scores make up the Adaptive Behavior Composite for individuals aged birth through 6:11:30; for individuals aged 7 and older, three domain composites form the Adaptive Behavior Composite. Examiners may choose to administer a single domain or any combination of domains to assess an individual's adaptive functioning in one or more areas or administer all domains required at a given age to obtain the Adaptive Behavior Composite. The domains, and subdomains that comprise them, are described briefly in **Table 1.1.**

Figure 1.1 Structure of the Vineland–II



Three subscales—Internalizing, Externalizing, and Other—make up the optional Maladaptive Behavior Index, which provides a measure of undesirable behaviors that may interfere with an individual's adaptive behavior. Examiners who wish to assess problem behaviors should administer all subscales and obtain the composite score. The optional Maladaptive Critical Items do not contribute to a subscale or composite, but provide brief indicators of more severe maladaptive behaviors that examiners may want to consider in the overall assessment of adaptive behavior. The Maladaptive Behavior Index and the Maladaptive Critical Items make up the Maladaptive Behavior Domain.

Table 1.1 Content Description of Vineland–II Survey Forms

Domains and Subdomains*	Content
Communication Domain	
Receptive	How the individual listens and pays attention, and what he or she understands
Expressive	What the individual says, how he or she uses words and sentences to gather and provide information
Written	What the individual understands about how letters make words, and what he or she reads and writes
Daily Living Skills Domain	
Personal	How the individual eats, dresses, and practices personal hygiene
Domestic	What household tasks the individual performs
Community	How the individual uses time, money, the telephone, the computer, and job skills
Socialization Domain	
Interpersonal Relationships	How the individual interacts with others
Play and Leisure Time	How the individual plays and uses leisure time
Coping Skills	How the individual demonstrates responsibility and sensitivity to others
Motor Skills Domain	
Gross	How the individual uses arms and legs for movement and coordination
Fine	How the individual uses hands and fingers to manipulate objects
ADAPTIVE BEHAVIOR COMPOSITE	A composite of the Communication, Daily Living Skills, Socialization, and Motor Skills Domains
Maladaptive Behavior Domain (OPTIONAL)	
Maladaptive Behavior Index	A composite of Internalizing, Externalizing, and Other types of undesirable behavior that may interfere with the individual's adaptive functioning
Maladaptive Behavior Critical Items	More severe maladaptive behaviors that may provide clinically important information

*The names of domains and subdomains have been changed on the Parent/Caregiver Rating Form to terms more familiar to parents and other caregivers.

Description of Survey Forms Components

Manual

The Survey Forms Manual contains directions for administering and scoring both the Survey Interview Form and the Parent/Caregiver Rating Form. It gives guidance in selecting which method of administration to use, and includes normative tables and scoring criteria for both forms. It also provides information on the development, appropriate uses, validity, reliability, and interpretation of the forms. Users should become familiar with this manual—especially Appendix E, which includes scoring criteria for each test item—before administering either of the Survey forms.

Forms

The Survey Interview Form Record Booklet contains the items for each scale and space for the examiner to record item scores during administration. It is designed to facilitate the semistructured interview, linking related content with a symbol to help examiners structure the interview and locate and score related items. Demographic information can be recorded on the front page; derived scores can be recorded and graphically displayed on the detachable Score Report at the back of the booklet. The Parent/Caregiver Rating Form Record Booklet contains the same items in the same order as the Survey Interview Form but features a different design for parents and caregivers. The terms *domain* and *subdomain*, which are not familiar to many parents and caregivers, have been replaced with more descriptive, readily understandable terms. Table 2.1 provides names of domains and subdomains as they appear on the Parent/Caregiver Rating Form. The Parent/Caregiver Rating Form includes space on the front page for recording identifying information, and has a detachable Score Report at the back for recording derived scores and graphically displaying them.

Parent and Caregiver Feedback Reports

The Report to Parents or Report to Caregivers can be used to communicate assessment results of either Survey form. Each report allows the examiner to summarize the individual's derived scores and explain them in relation to the individual's strengths and weaknesses.

Computer Software

A computer program, the Vineland–II Survey Forms ASSIST™, scores and reports the Survey Interview Form and Parent/Caregiver Rating Form results. The program allows for entry of either subdomain raw scores or individual item scores, and converts raw scores to derived scores. The program also provides a number of options for generating score reports.

Vineland–II Spanish Forms

Spanish versions of the Survey Interview Form, Report to Parents, and Report to Caregivers are available. The Spanish version of the Survey Interview Form is administered and scored in the same way as the English version. Even though the items are translated into Spanish, they are not to be read to the respondent, and the Spanish version is not intended to be administered as a rating scale.

Administration Time

Examiners using the Survey Interview Form can expect to spend 20 to 60 minutes conducting a semistructured interview, depending on the age or developmental level of the individual being assessed. This estimate is based on actual administration times during the national standardization. An additional 15 to 30 minutes may be needed to hand-score the form, obtain derived scores, and complete the interpretive steps.

Examiners using the Parent/Caregiver Rating Form can expect respondents to take 30 to 60 minutes to complete the form, depending on the age of the individual whose behavior they are rating. This estimate is based on actual administration times during the national standardization. Examiners should expect to spend time going over the form with the respondent before administration and reviewing the form after the respondent has completed it. As with the Survey Interview Form, an additional 15 to 30 minutes may be needed to hand-score the form, obtain derived scores, and complete the interpretive steps.

Comparison with the Vineland ABS

Although the Vineland–II maintains the 4-domain, 11-subdomain structure of the Vineland ABS, it represents a substantial revision of the Vineland ABS content. Most of the new items have been added to improve measurement for very young children or for adults. Other item additions or modifications are designed to improve the thoroughness or accuracy of assessment throughout the age range. The following is a summary of the major substantive changes made in the subdomain content.

The Receptive and Expressive Subdomains of the Communication Domain now include more items that measure the development of spoken language and the ability to initiate and sustain conversation, making these subdomains more useful in measuring the qualitative impairments in communication associated with autism spectrum disorders.

The Personal, Domestic, and Community Subdomains of the Daily Living Skills Domain now include more items to assess independent living skills, making them more useful for determining whether an individual with deficits in adaptive functioning can live independently and for planning supports to allow such individuals to live in the least restrictive environment possible.

The Interpersonal Relationships and Play and Leisure Time Subdomains of the Socialization Domain now include more items that measure an individual's ability to understand and use nonverbal communication to regulate social interaction, and the ability to develop and maintain personal relationships, making these subdomains more useful in measuring the qualitative impairments in social interaction that are characteristic of individuals with autism spectrum disorders. In addition, items measuring gullibility, social naïveté, and the ability to recognize and avoid victimization have been added, consistent with the growing recognition of the importance of such content in the identification and classification of mild mental retardation.

Table 1.2 documents the increase in the number of items in each domain and subdomain.

Table 1.2 Number of Items in the Vineland–II Survey Forms and Vineland ABS Survey Form, by Domain and Subdomain

Vineland ABS		Vineland–II	
Domain and Subdomain	Survey Form Items	Survey Form Items	Domain and Subdomain*
Communication	67	99	**Communication**
Receptive	13	20	Receptive
Expressive	31	54	Expressive
Written	23	25	Written
Daily Living Skills	92	109	**Daily Living Skills**
Personal	39	41	Personal
Domestic	21	24	Domestic
Community	32	44	Community
Socialization	66	99	**Socialization**
Interpersonal Relationships	28	38	Interpersonal Relationships
Play and Leisure Time	20	31	Play and Leisure Time
Coping Skills	18	30	Coping Skills
Motor Skills	36	76	**Motor Skills**
Gross	20	40	Gross
Fine	16	36	Fine
ADAPTIVE BEHAVIOR COMPOSITE	261	383	**ADAPTIVE BEHAVIOR COMPOSITE**
Maladaptive Behavior Part 1	27	36	Maladaptive Behavior Index
		11	Internalizing
		10	Externalizing
		15	Other
Maladaptive Behavior Part 2	9	14	Maladaptive Critical Items

*The Parent/Caregiver Rating Form uses different names for the domains and subdomains

Uses of the Vineland–II Survey Forms

The Vineland–II is applicable whenever an assessment of an individual's daily functioning is required. The scales are used in a variety of clinical, educational, and research settings. Perhaps the major clinical use to which the Vineland–II will be applied is as a major or ancillary diagnostic tool.

Diagnostic Evaluations

Since 1959, legislation (e.g., the Individuals with Disabilities Education Improvement Act of 2004) and the official manuals of the American Association on Mental Retardation (Heber, 1959,1961; Grossman, 1973, 1977, 1983; AAMR 1992, 2002) have stated that deficits in adaptive behavior, as well as cognitive functioning, must be substantiated before an individual is given a diagnosis or classification of mental retardation. Like the Vineland ABS, the Vineland–II Survey forms are well suited for evaluation and diagnosis of mental retardation because of their comprehensive content and careful development and standardization. The norm-referenced data provide reliable and valid estimates of an individual's adaptive behavior and ranking in comparison with a national normative group. Strengths and weaknesses in specific areas may be determined.

The Vineland–II Survey forms are not limited to use with mental retardation, however. They are designed to aid in the clinical diagnosis of a variety of disorders and disabilities, including autism spectrum disorders, various genetic disorders, developmental delays, emotional and behavioral disturbances, and a wide range of other mental, physical, and injury-related conditions. Extensive research and clinical practice using the Vineland ABS have demonstrated that adaptive behavior should often be a major component in assessing current functioning in individuals across a broad range of conditions. Understanding how any disorder, environment, or condition affects an individual's everyday life (e.g., personal hygiene, domestic activities, friendships, responsibilities, leisure activities, motor skills, etc.) is critical. This understanding should help drive treatment planning and/or other interventions.

Developmental Evaluations

The Vineland–II provides an important tool for measuring young children's development and determining their eligibility for public-supported early intervention. Special education reauthorization in 1986 (Public Law 99-457), which mandated special education preschool services for children aged 3 through 5 years, codified the importance of measuring adaptive functioning in young children by making it one of five domains of development by which young children could be eligible for intervention services. This legislation made the assessment of adaptive behavior an essential part of evaluations for children birth through 5. It also mandated the involvement of caregivers in the evaluations, highlighting the importance of the caregiver's perspectives in understanding a young child's developmental strengths and needs.

Progress Monitoring

With the Survey Interview Form and the Parent/Caregiver Rating Form, the Vineland–II can provide an in-depth or a quick assessment of the individual's current level of functioning. The flexibility of two methods of administration makes the monitoring of the individual's progress in acquiring new skills, or strengthening existing ones, more convenient.

Program Planning

In recent years, increased emphasis has been placed on the development and implementation of individual educational, habilitative, and treatment programs. The development of these programs requires a clear description of the individual's strengths and weaknesses as well as goals and objectives that are relevant to an individual's needs. The Vineland–II Survey forms provide comprehensive, yet targeted, content that yields an efficient and accurate description of the individual's adaptive functioning at the domain and subdomain level. The Vineland–II Survey forms also assess the skills necessary for personal and social sufficiency—skills emphasized in many treatment programs.

Information obtained from the Vineland–II Survey forms can be used to select the most suitable type of program for the individual and to pinpoint activities most needed.

Research

The Vineland–II may be used in many types of research projects in which the development and functioning of individuals with and without disabilities are investigated. Because the Vineland–II does not require the presence of the individual being assessed, it is useful for research about mental and physical disabilities, infant development, and parent-child relationships. Examples of specific research applications of the Vineland–II are to

- assess the effects of various treatments or clinical interventions upon levels of adaptive functioning
- determine the relationship of adaptive behavior levels to levels of clinical, cognitive, or educational functioning

- gather information in longitudinal studies in which adaptive functioning is a variable of interest. Because the Vineland–II can be used with individuals from birth through adulthood, information gathered from the Vineland–II can be used throughout the duration of longitudinal studies.

The Construct of Adaptive Behavior

As with the Vineland ABS, the development of the Vineland–II relied heavily upon the following definition, as well as historical trends in the conceptualization and measurement of adaptive behavior.

The authors define adaptive behavior as the performance of daily activities required for personal and social sufficiency. Four important principles are inherent in this definition of adaptive behavior. First, adaptive behavior is age related. In most individuals, adaptive behavior increases and becomes more complex as an individual grows older. For younger children, activities such as dressing and getting along with playmates are important; for adults, holding a job and managing money are necessary. Second, adaptive behavior is defined by the expectations or standards of other people. The adequacy of an individual's adaptive behavior is judged by those who live, work, and interact with the individual. Third, adaptive behavior is modifiable. In contrast to cognition, which is considered relatively stable for most individuals over time, adaptive functioning can become worse or can improve depending on interventions, changes in environment, physical or emotional trauma, or other events. Finally, adaptive behavior is defined by typical performance, not ability. While ability is necessary for the performance of daily activities, an individual's adaptive behavior is inadequate if the ability is not demonstrated when it is required. For example, if a person has the ability to perform according to basic rules of safety and verbalizes the rules when asked, but seldom follows them, his or her adaptive behavior is considered to be inadequate in that area.

History

The construct of adaptive behavior has its roots in the history of defining mental retardation. Present concepts can be traced to early attempts to describe those with mental retardation; for example, during the Renaissance and Reformation, language and law defined mental retardation in terms of adaptive behavior (Sheerenberger, 1983). According to Robinson and Robinson (1976), the adaptive behavior of individuals with mental retardation received continued attention throughout the 1800s with legal reforms for individuals with disabilities and a greater effort to understand the relationship between individuals with mental retardation and others in the community.

The introduction of measures of cognitive functioning in the early 1900s (e.g., Binet & Simon, 1905; Terman, 1916; Wechsler, 1939) led to the pervasive practice of defining mental retardation solely in terms of intelligence test scores. The reliance on IQ as the means of classifying those with mental retardation continued for many years, despite increasing concern over the use of a single criterion and increasing criticism of intelligence tests (Brockley, 1999).

Although it was several years before the role of adaptive behavior in assessing and classifying individuals with mental retardation was widely recognized, in 1959 the American Association on Mental Retardation (AAMR), formerly the American Association on Mental Deficiency (AAMD), published its first official manual and formally included deficits in adaptive behavior, in addition to sub-average intelligence, as an integral part of the definition of mental retardation (Heber, 1959, 1961). The AAMR manual listed two major facets of adaptive behavior:

1. the degree to which the individual is able to function and maintain him- or herself independently and
2. the degree to which he or she meets satisfactorily the culturally imposed demands of personal and social responsibility (Heber, 1961, p. 61)

Between 1973 and 2002, AAMR published revised editions of its manual that further emphasized the importance of adaptive behavior in the classification of mental retardation (AAMR, 1992, 2002; Grossman, 1973, 1977, 1983). Although modified somewhat, the major premises of Heber's definition were still evident in later editions of the AAMR manual. The most recent (2002) edition identifies three domains of adaptive behavior: conceptual (involving such skills as language, money concepts, and reading and writing), practical (activities of daily living, occupational skills, etc.), and social (interpersonal, responsibility, obeying laws, etc.). The importance of adaptive behavior in the diagnosis of mental retardation is also recognized in the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders,* Fourth Edition, Text Revision (2002), and in the International Classification of Functioning, Disability, and Health (World Health Organization, 2001).

The development of the adaptive behavior construct and its wider application were strongly influenced by passage of the Education for All Handicapped Children Act of 1975 (Public Law 94-142), which followed a similar act, the Rehabilitation Act of 1973, a law to promote the education, employment, and training of individuals with disabilities. Public Law 94-142 and its reauthorizations under the name IDEA, including the Amendments of 1997 (IDEA, 1999) and the Individuals with Disabilities Education Improvement Act of 2004, require that states seeking financial assistance from the federal government provide free and appropriate public education to all children regardless of their disability (physical, mental, emotional, learning, or linguistic). Stringent guidelines for the assessment of children with disabilities are stated in the law; assessment in all areas related to the disability, including adaptive behavior, is required. The definition of mental retardation in IDEA is similar to the current AAMR definition, and the law requires that deficits in adaptive behavior be substantiated before a child is classified with mental retardation. Further, IDEA recognizes the importance of an adaptive behavior assessment for children with disabilities other than mental retardation. Since the passage of the law, states have developed guidelines which stress adaptive behavior assessment, particularly for those with mental retardation or other disabilities (Jacobson & Mulick, 1996; Patrick & Reschly, 1982).

The Contributions of Edgar A. Doll

The Vineland ABS is a revision of the *Vineland Social Maturity Scale* (Vineland SMS), which was developed by Edgar A. Doll (1935, 1965) for use in the evaluation of individuals with mental retardation. As early as 1935, Doll noted that ability assessments of individuals with mental retardation are incomplete without valid estimates of adaptive behavior. According to Doll, the primary focus of assessment of individuals with mental retardation should be on their capacity for maintaining themselves and their affairs. Doll's concern was to identify the relationship between mental deficiency and social competence, which he defined as "the functional ability of the human organism for exercising personal independence and social responsibility" (Doll, 1953, p. 10). In his six criteria of mental deficiency, Doll (1940) listed social incompetence as first and most important. Because the immediate occasion for suspicion of mental deficiency is a social circumstance, Doll wrote, no mental diagnosis is complete if it does not begin with a sound estimate of social competence and end with a prediction of social competence following prognosis or treatment.

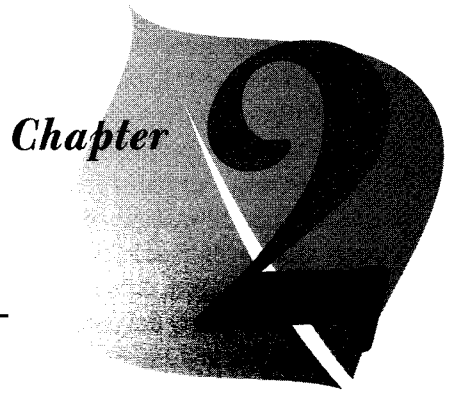
Doll (1953) contributed many ideas to the construct of adaptive behavior, paramount among them the concept that adaptive behavior is developmental in nature. In other words, what is considered to be socially sufficient behavior is dependent upon the age of the person under evaluation. This principle continues to be crucial to the measurement of adaptive behavior.

A second enduring contribution of Edgar Doll is his understanding that social competence, or adaptive behavior, encompasses a wide range of areas or domains. Doll classified eight categories of items on the Vineland SMS (Doll, 1935, 1965): self-help general; self-help dressing; self-help eating; communication; self-direction; socialization; locomotion; and occupation. Although there is some difference of opinion as to whether Doll's categorization is the best, the perception of adaptive behavior as multidimensional has survived from one generation to the next.

Another characteristic of adaptive behavior assessment embodied in the original Vineland has withstood the test of time and appears in most later scales of adaptive behavior: the administration of such scales does not require the participation of the individual whose adaptive behavior is being assessed, but only requires a respondent who is familiar with the individual's behavior. This "third party" method of administration produces a valid measurement of the day-to-day activities that cannot be adequately measured through direct administration of tasks. This method also allows assessment of individuals who will not or cannot perform on command in a direct administration situation, such as infants, individuals with severe or profound mental retardation, individuals with severe emotional disturbances, and individuals with physical disabilities.

Doll's concepts undoubtedly formed the basis of present definitions of mental retardation and practices in the assessment of adaptive behavior. For many years after Doll's development of the Vineland SMS in the 1930s, however, IQ scores continued to receive the major emphasis in the classification of individuals with mental retardation. Not until the 1960s and 1970s were Doll's ideas reflected in terms of new definitions of mental retardation, legislation and litigation concerning those with mental retardation, and the further development and proliferation of adaptive behavior scales.

Administration



The two Survey forms of the Vineland–II, the Survey Interview Form and the Parent/Caregiver Rating Form, are designed to provide comparable results using different methods of administration. The first section of this chapter outlines the unique methodological issues related to defining and measuring adaptive behavior, and provides a framework for selecting the method of administration best suited to a particular evaluation. Subsequent sections of the chapter describe the procedures for administering each form. A detailed description of how to conduct a semistructured interview is included, as well as step-by-step instructions for guiding a respondent through the completion of the Parent/Caregiver Rating Form.

Rationale for the Interview and Rating Formats

Developing an adaptive behavior assessment presents methodological issues not common to other instruments. Because adaptive behavior begins at birth and becomes increasingly complex throughout life, the instrument has to measure the abilities of infants and young children as reliably as it measures the skills of older individuals. In addition, because adaptive behavior is defined by typical performance, the instrument must be able to distinguish between the ability to perform a given behavior and performing that behavior when it is needed.

Many traditional assessment instruments use a format that requires the individual to respond to standardized stimuli in a formal testing session. Using this approach to measure adaptive behavior may result in a somewhat inaccurate description of an individual's behavior, particularly that of a young child. In such testing sessions, a very young child may choose not to respond because of unfamiliarity with the testing situation, inability to understand what is required, or discomfort with the individual conducting the assessment. Often a child is reluctant, shy, or frightened and simply will not respond to the test stimuli.

Santos de Barona and Barona (1991) summarize the challenge of assessing young children: "Many young children are not yet aware of, or concerned about, social expectations regarding behavior and act according to their immediate whims. They are able to demonstrate sustained attention for only short intervals and even these brief periods may be affected by fatigue or hunger" (p. 365). In such situations, determining whether the child's lack of response is the result of the testing situation or is a reflection of ability can be difficult.

The challenges of using a formalized testing session for young children also apply to many individuals with developmental delays, emotional disturbances, and physical disabilities—individuals for whom an adaptive behavior measure is often used. Even if the individual performs on command during such a testing session, the examiner cannot be sure if this performance represents typical performance.

To avoid the problem of distinguishing between ability and typical performance, some assessment procedures rely on the observation and recording of an individual's behaviors in natural surroundings. However, unless a standardized set of skills is assessed, such results cannot be confidently compared with a normative sample to make judgments about level of ability.

The Semistructured Interview Format

Because of the methodological problems associated with obtaining reliable and valid information when assessing an individual's usual behavior, the Vineland–II Survey Interview Form, like its predecessors the *Vineland Adaptive Behavior Scales* (Vineland ABS; Sparrow, Balla, & Cicchetti, 1984) and the *Vineland Social Maturity Scale* (Vineland SMS: Doll, 1935, 1965), provides a semistructured interview format for administration. This format does not require the participation of the individual whose adaptive behavior is being assessed, but only requires a respondent who is familiar with the individual's behavior.

This "third-party" method of administration produces a valid measure of those day-to-day activities that cannot be adequately measured through direct administration of tasks, and allows for the assessment of individuals who will not or cannot perform on command. Another benefit of the interview procedure is the depth of accurate information obtained about the individual's level of functioning. As Goldstein, Smith, Waldrep, and Inderbitzen (1987) found, "the more open-ended nature of the Vineland ABS procedure frequently promotes response elaboration and elicits more information than does the rating scale" (p. 5). Also, response bias is reduced, in part because information about the individual's abilities is gathered through normal conversation with a respondent who does not know the item content or scoring method.

Particular benefits of the semistructured interview include:

- Enhanced rapport between the interviewer and respondent, because the method approximates an everyday social conversation about the individual's activities
- A positive testing atmosphere created by eliminating direct questioning and placing the emphasis on what the individual does rather than what he or she does not do
- A more natural flow of information within a given content area than is possible if items were read to the respondent in a predetermined order
- Greater efficiency than item-by-item questioning; the use of a small number of general questions, followed by appropriate probes, can produce specific information for many items in a given content area
- More in-depth information, because the respondent responds to open-ended questions or statements rather than answering "yes," "no," or "sometimes" to very specific questions. Extensive clinical information is obtained, over and above what would be learned by asking each question word-for-word.
- Because the respondent is free to describe each activity in his or her own words, more accurate descriptions of the individual's activities are provided than would be possible with pre-set, potentially biased limits created by the specific language or content of a given item
- More consistent scoring, because scoring is the responsibility of the interviewer, who is a trained professional with a thorough understanding of the criteria for scoring each item, and can probe in depth, as necessary, to obtain sufficient information to score each item correctly

The Rating Scale Format

The rating scale format provides another method of obtaining valid information about an individual's usual behavior. Like the semistructured interview, this "third-party" method of administration requires a respondent who is familiar with the behavior of the individual to rate a checklist of the individual's skills.

This method, however, may result in biased ratings by the respondent, who may report very infrequent behaviors or embellish or minimize the individual's performance. Evans and Bradley-Johnson (1988) observed that "sometimes informants rate all skills based on their overall feelings about a student. For example, if an informant likes a student, all skills might be rated as very good, despite the fact that the student has some weak areas. Or informants may bias ratings to fit their own interests or intents" (p. 284). For example, the respondent might not want a disability "label" attached to his or her child or placed in the child's school records. On the other hand, the respondent might want his or her child to qualify for special programs or welfare benefits even if the child's functioning is not within the disabled range. Also, the respondent might rate the individual's performance higher than his usual behavior would warrant because the respondent confuses *ability* to perform the behavior with *usual* performance. Wells (1981) concluded that "Rating scales and checklists filled out by caregivers are subject to situational and contextual biases and potential misperceptions of these individuals and may not accurately reflect the child's actual behavioral characteristics and tendencies" (p. 505).

When examiners are aware of these limitations and vigilantly guard against them, the rating scale method of administration can provide needed flexibility when a face-to-face interview is not practical or needed. For this reason, the Vineland–II offers a choice between the Survey Interview Form and the Parent/Caregiver Rating Form. To ensure the accuracy of information obtained and reduce response bias, the examiner must play an active role in reviewing the form and the instructions for completing it with the respondent, and monitoring and reviewing the results. The examiner will need to scrutinize the completed form and use probes to resolve any discrepancies—a procedure similar to conducting a semistructured interview.

Selecting the Method of Administration

When considering whether to use the Survey Interview Form or the Parent/Caregiver Rating Form, the clinician should consider the intended use of the results and the characteristics, motivations, and emotional state of the respondent.

Typically, there are four reasons to assess adaptive behavior:

- For diagnostic evaluation for referral or qualification for special services
- For evaluation to inform the differential diagnosis
- For program planning or development of treatment plans
- For progress monitoring

While the Survey Interview Form and the Parent/Caregiver Rating Form both provide assessment support for referral for services or placement in special programs, the strength of the semistructured interview format in eliciting accurate, in-depth descriptions of the individual's functioning make it the preferred method when the results will inform diagnostic decisions. Similarly, the response elaboration characteristic of the semistructured interview often provides additional clinical information useful in making a differential diagnosis.

Often the supplementary detail elicited with the interview method is not needed for program planning and progress monitoring, making the Parent/Caregiver Rating Form a good choice when the results will be used to guide treatment. In addition, because multiple sources of information are always recommended in determining diagnoses, the Parent/Caregiver Rating Form provides a convenient way to get a second view of the individual's functioning.

Before choosing to use the Parent/Caregiver Rating Form, the clinician must also determine whether this method of administration is appropriate for a given respondent. First, the clinician must decide whether the respondent has sufficient reading ability to understand the Vineland–II items and the directions for completing the form, as well as an adequate command of English if he or she is not a native English speaker. The clinician must also evaluate whether the respondent may be biased in regard to the outcome of the evaluation. It is important to note that during standardization, no significant score differences were obtained between the Survey Interview Form and the Parent/Caregiver Rating Form. However, the standardization respondents had no investment in the outcome because the results could not lead to any future outcome, such as enrollment in a special program or eligibility for benefits. Thus, it is important that the clinician have sufficient contact with the respondent to be confident of unbiased results. It has been the experience of the authors that most parents try to be as unbiased as possible, but clinicians should favor the interview format if they have any doubt about the respondent's lack of bias.

One additional consideration is the emotional and mental state of the respondent. The parent or caregiver of a child with a severe disability or a diagnosis associated with lifelong impairments may be struggling to accept and understand his or her child's condition. Completing a rating form that emphasizes what the child cannot do may add to the parents' distress. It has been the authors' experience that parents often report enjoying the semistructured interview and find it comforting to be able to describe what their child does rather than what he or she doesn't do.

General Procedures for Administration

This section discusses issues that apply to administration of both the Survey Interview Form and the Parent/Caregiver Rating Form. The subsequent sections give separate, detailed instructions for administering each of the two forms.

Computing Chronological Age

The record booklet covers of the Survey Interview Form and Parent/Caregiver Rating Form contain sections for computing the chronological age of the individual who is the focus of the assessment. Three sample age computations are shown in **Figure 2.1**. The first requires no borrowing. In the second, one year must be borrowed to permit subtraction of months. In the third sample, first one month (30 days) is borrowed so the days can be subtracted (changing the months from 6 to 5); then one year is borrowed so the months can be subtracted (changing the months again from 5 to 17). When borrowing one month, always add 30 days to the number in the day column. Do not round 15 or more days to the next higher month.

Figure 2.1 Computing chronological age on the front cover of the record booklets

AGE:	YEAR	MONTH	DAY
Interview date	2005	6	19
Birth date	1993	4	12
Chronological age	12	2	7
AGE:	**YEAR**	**MONTH**	**DAY**
Interview date	'04 2005	18 ~~6~~	19
Birth date	1993	11	12
Chronological age	11	7	7
AGE:	**YEAR**	**MONTH**	**DAY**
Interview date	'04 2005	~~6~~ 17	49 ~~19~~
Birth date	1993	11	22
Chronological age	11	6	27

Selecting the Respondent

Careful selection of a qualified respondent is critical for obtaining valid results with either Survey form. The respondent must be the adult who is most familiar with the everyday behavior of the individual being evaluated. In general, the respondent should have frequent contact with the individual (preferably every day) over an extended period of time to allow multiple opportunities to observe the individual's responses to a variety of environmental demands.

For a child living at home, a parent is usually the most appropriate respondent. In some cases, however, another adult family member (for example, a grandparent assuming major caregiving responsibilities) could be a more suitable choice. If the child does not live with his or her family but lives in a residential facility, then the respondent should be the caregiver who best knows the child. Such a caregiver might be a house parent, unit aide, social worker, nurse, day-care worker, or recreation worker.

For an adult, respondents may include a spouse or other adult family member, a professional caregiver in a residential or nonresidential facility, a counselor, or a work supervisor.

On occasion, the individual whose behavior is being assessed is the only available source of information about his or her own behaviors. In such cases, the individual may serve as the respondent, but only if the Survey Interview Form is used. The semistructured interview format is less prone to respondent bias than is the rating method when the individual is providing information on his or her own behavior.

In some circumstances, because of a lack of sufficient knowledge of an individual's activities in all domains, more than one respondent may be necessary. However, only one respondent should provide information concerning a given domain. To qualify as a respondent in such circumstances, the caregiver must have knowledge of the individual in at least one complete adaptive behavior domain. For the standardization sample, a single respondent provided information for each individual. No normative data are based on multiple respondents. Therefore, every attempt should be made to locate one respondent who is familiar with the individual's activities in all domains.

Establishing Rapport

Establishing a relationship that encourages the respondent to provide accurate, unbiased information about the individual's typical level of functioning is one of the most important preconditions for obtaining valid results on the Survey Interview Form or Parent/Caregiver Rating Form. When preparing to conduct an interview or explain the Rating Form to the respondent, take time to establish rapport. Begin by briefly describing the purpose of the assessment. You might say, "Learning about [individual's name]'s adaptive behavior will help us to gain a total picture of him [her]. You are an important person to give us information about [individual's name]'s adaptive behaviors." You might define adaptive behavior by saying, "Adaptive behaviors are the day-to-day activities that are necessary for individuals to get along with others and take care of themselves. These activities change as a person grows older and becomes less dependent on the help of others. But at every age, certain skills are required at home, at school, and in the community."

Then briefly describe each scale, or domain. To do so, you might say, "Adaptive behaviors fall into four general areas [or three, depending on the individual's age]. The first deals with *communication,* or how [the individual's name] speaks and understands others [and, if appropriate, reads and writes]. The second area deals with *daily living skills* that [individual's name] uses for eating, dressing, and taking care of personal needs. The third area involves the skills that [individual's name] uses to get along with others, called *socialization skills,* as well as his or her play activities and use of leisure time. The last area deals with important physical skills, called *motor skills.*"

If you are administering the optional Maladaptive Behavior Domain (for individuals aged 3 or older), you might describe them as sections that address

undesirable or negative behaviors that can interfere with the demonstration of the skills just described, such as a negative behavior that makes getting along with others difficult.

Typically, the Vineland–II is administered to determine whether an individual has a disability or disorder and needs intervention services, such as special education, rehabilitation, or an individualized treatment plan. Respondents might be unfamiliar with the assessment process and could be anxious or concerned. As you describe the scales and the purpose of the assessment, you should attempt to decrease a respondent's anxiety by explaining how the results might be used to make diagnostic or educational placement decisions, and who will have access to the results.

As you describe the assessment process, emphasize the following points to the respondent:

- There are no "right" or "wrong" answers to the questions.
- The respondent should describe what the individual *actually does,* not what the individual might be *capable* of doing.
- Each individual is different. Not all individuals perform the same activities at the same age.

Administering the Motor Skills Domain for Ages 7 and Older

Based on the performance of the standardization sample, the items of the Motor Skills Domain are appropriate for individuals without disabilities through age 6. An examiner may choose, however, to administer the Motor Skills Domain for individuals 7 or older in some circumstances.

For example, administration would be appropriate for an individual without disabilities for whom a motor deficit is suspected; an older individual for whom a decline in motor functioning is suspected; an individual with a disability that affects motor functioning, such as a visual impairment; or an individual with a disability who has a generally low level of function in all areas.

Norms for the Motor Skills Domain and subdomains are available for adults aged 50 through 90 as well as children aged birth through 6. (However, because the Motor Skills Domain is optional above age 6, the Adaptive Behavior Composite at ages 7 through 90 does not include this domain.) When the Motor Skills Domain is administered for an individual 7 or older, estimated derived scores for the domain and Gross and Fine Subdomains may be obtained using the procedure given in Chapter 3.

Administering the Maladaptive Behavior Domain

When problem behaviors may be interfering with the adaptive behavior of an individual aged 3 years or older, the examiner may choose to administer the optional maladaptive behavior sections. An examiner using the Parent/Caregiver Rating Form who does not wish to administer the maladaptive behavior sections should simply cross out those sections and instruct the respondent to ignore them. For the interview format, detailed administration instructions for the maladaptive behavior sections are presented later in this chapter, in the portion on administration procedures for the Survey Interview Form.

Survey Interview Form Administration

Test Materials

The materials required for conducting the Survey Interview Form include this manual, which contains scoring criteria for the items; the Survey Interview Form record booklet; and a pencil. The record booklet consists of 30 pages. The cover has space for recording information about the individual, the respondent, and the interviewer. Pages 5 through 25 contain the 433 items for the four adaptive behavior domains, or scales, and the optional maladaptive behavior domain. Starting points by age are indicated to the left of the items. Boxes for recording item scores are placed to the right of the items. Page 26 provides space for recording observations and other information about the interview, and pages 27 through 30 comprise the detachable Vineland–II Score Report, which includes the Score Summary, Score Profile, and Pairwise Comparisons.

The Testing Environment and Rapport

Conduct the interview in a quiet room with adequate space, a comfortable temperature, pleasant atmosphere, and comfortable chairs. In most situations, only you and the respondent should be in the room during the interview; the individual being assessed should not be present. On occasion, however, it may be necessary to have both parents present. This is most likely to occur when the interview is part of a comprehensive evaluation and both parents are requested to be present. In such cases, ask which parent is most familiar with the individual's behavior and indicate that that parent should respond to your questions, although comments and discussion from the other parent are welcome.

As noted earlier, establishing a relationship that encourages the respondent to provide accurate, unbiased information about the individual's typical level of functioning is crucial for valid assessment. Use the first five minutes of the interview to establish rapport and set a conversational tone. This allows you to develop an impression of both the respondent and the individual. This impression will help you structure the interview and determine the most appropriate general questions to ask.

In addition to the general recommendations presented earlier, the following specific tips may help build rapport with a respondent:

- Be open, honest, and friendly. Use the respondent's name, and refer by name to the individual who is being assessed. Introduce yourself, using your first name if you are comfortable doing so.
- Maintain good eye contact, smile often to express understanding and reassurance, and be sincerely enthusiastic, supportive, and nonjudgmental.
- Encourage the respondent to ask questions at any time during the interview.

Preparing for Administration

Reviewing Semistructured Interview Technique

As noted earlier, the goal of the semistructured interview is to allow a normal conversation to unfold in which the respondent describes key developmental milestones or adaptive behaviors that represent the individual's usual functioning. The interviewer does not read the test items to the respondent and does not permit the respondent to read the items; rather, the interviewer asks general questions about the individual's activities followed by further probes to elicit more specific information. It is important that the interviewer be able to design general questions and specific probes that encourage the respondent to describe the individual's behavior so that items can be scored. Best results are obtained when the interviewer has a thorough understanding of the test items and experience in conducting a semistructured interview.

Structure of the Survey Interview Form

The interviewer can use the structure of the Survey Interview Form to design general questions and determine whether specific probes are needed to score the items. Because the items on the Survey Interview Form are organized by subdomain, and each subdomain covers a number of content categories, a general question related to one content category can provide enough information to score several items. The sections below describe the organization of the items, and are followed by a step-by-step guide to designing questions and probes. A sample interview with scoring also is included.

Organization by Subdomain and Content Category

Each of the 11 Vineland–II subdomains covers several content categories. For example, the Receptive Subdomain includes three content categories: Understanding, Listening and Attending, and Following Instructions. Each of these content categories contains a number of related items. For example, Following Instructions includes Item 10, Follows instructions with one action and one object; Item 12, Follows instructions with two actions or one action and two objects; and Item 16, Follows three-part instructions.

This organization allows the interviewer to formulate a question relating to a number of items within a content category, rather than having to elicit information on each item. For example, a general question about following instructions might elicit enough information to score Items 10, 12, and 16. However, as this example illustrates, items within a content category are not grouped together on the record form; items are ordered from easiest to most difficult by subdomain, not by content category.

To help examiners quickly locate and score related items within a content category, the categories for each subdomain are listed on the record booklet, and all items within a category are identified by a common symbol to the left of the item number (see **Figure 2.2**). The symbol is also repeated next to each item's score box. **Table 2.1** shows the content categories for each subdomain.

Figure 2.2 Survey Interview Form page from the Receptive Subdomain

Communication Domain

Response Options: 2 = Usually, **1** = Sometimes or Partially, **0** = Never, **DK** = Don't Know

■ Understanding ♥ Listening and Attending ○ Following Instructions

RECEPTIVE

					Check for Comments below
< 1 →	■	1	Turns eyes and head toward sound.	■ 2 1 0 DK	
	♥	2	Looks toward parent or caregiver when hearing parent's or caregiver's voice.	♥ 2 1 0 DK	
	■	3	Responds to his or her name spoken (for example, turns toward speaker, smiles, etc.).	■ 2 1 0 DK	
1 →	■	4	Demonstrates understanding of the meaning of *no*, or word or gesture with the same meaning (for example, stops current activity briefly).	■ 2 1 0 DK	
	■	5	Demonstrates understanding of the meaning of *yes*, or word or gesture with the same meaning (for example, continues activity, smiles, etc.).	■ 2 1 0 DK	
	♥	6	Listens to story for at least 5 minutes (that is, remains relatively still and directs attention to the storyteller or reader).	♥ 2 1 0 DK	
2 →	■	7	Points to at least three major body parts when asked (for example, nose, mouth, hands, feet, etc.).	■ 2 1 0 DK	
	■	8	Points to common objects in a book or magazine as they are named (for example, dog, car, cup, key, etc.).	■ 2 1 0 DK	
	♥	9	Listens to instructions.	♥ 2 1 0 DK	
	○	10	Follows instructions with one action and one object (for example, "Bring me the book"; "Close the door"; etc.).	○ 2 1 0 DK	
3+ →	■	11	Points to at least five minor body parts when asked (for example, fingers, elbows, teeth, toes, etc.).	■ 2 1 0 DK	
	○	12	Follows instructions with two actions or an action and two objects (for example, "Bring me the crayons and the paper"; "Sit down and eat your lunch"; etc.).	○ 2 1 0 DK	
	○	13	Follows instructions in "if-then" form (for example, "If you want to play outside, then put your things away"; etc.).	○ 2 1 0 DK	
	♥	14	Listens to a story for at least 15 minutes.	♥ 2 1 0 DK	
	♥	15	Listens to a story for at least 30 minutes.	♥ 2 1 0 DK	
	○	16	Follows three-part instructions (for example, "Brush your teeth, get dressed, and make your bed"; etc.).	○ 2 1 0 DK	
	♥	17	Follows instructions or directions heard 5 minutes before.	♥ 2 1 0 DK	
	■	18	Understands sayings that are not meant to be taken word for word (for example, "Button your lip"; "Hit the road"; etc.).	■ 2 1 0 DK	
	♥	19	Listens to an informational talk for at least 15 minutes.	♥ 2 1 0 DK	
	♥	20	Listens to an informational talk for at least 30 minutes.	♥ 2 1 0 DK	

Comments

[ ] × 2 = [ ]

Missing Item:

Total* + [ ]

DK Total + [ ]

Total + [ ]

*If the total of DK and/or Missing is greater than 2, do not score subdomain.

Receptive Raw Score = [ ] SUM

5

Table 2.1 Content Categorization of Survey Forms Items

DOMAINS, SUBDOMAINS, AND CONTENT CATEGORIES FOR VINELAND-II SURVEY FORMS

COMMUNICATION DOMAIN

Receptive Subdomain (Listening and Understanding)*

Understanding

1. Turns eyes and head toward sound.
3. Responds to his or her name spoken (for example, turns toward speaker, smiles, etc.).
4. Demonstrates understanding of the meaning of *no,* or word or gesture with the same meaning (for example, stops current activity briefly).
5. Demonstrates understanding of the meaning of *yes,* or word or gesture with the same meaning (for example, continues activity, smiles, etc.).
7. Points to at least three major body parts when asked (for example, nose, mouth, hands, feet, etc.)
8. Points to common objects in a book or magazine as they are named (for example, dog, car, cup, key, etc.).
11. Points to at least five minor body parts when asked (for example, fingers, elbows, teeth, toes, etc.).
18. Understands sayings that are not meant to be taken word for word (for example, "Button your lip"; "Hit the road"; etc.).

Listening and Attending

2. Looks toward parent or caregiver when hearing parent's or caregiver's voice.
6. Listens to story for at least 5 minutes, (that is, remains relatively still and directs attention to the storyteller or reader).
9. Listens to instructions.
14. Listens to a story for at least 15 minutes.
15. Listens to a story for at least 30 minutes.
17. Follows instructions or directions heard 5 minutes before.
19. Listens to an informational talk for at least 15 minutes.
20. Listens to an informational talk for at least 30 minutes.

Following Instructions

10. Follows instructions with one action and one object (for example, "Bring me the book"; "Close the door"; etc.).
12. Follows instructions with two actions or an action and two objects (for example, "Bring me the crayons and the paper"; "Sit down and eat your lunch"; etc.).
13. Follows instructions in "if-then" form (for example, "If you want to play outside, then put your things away"; etc.).
14. Follows three-part instructions (for example, "Brush your teeth, get dressed, and make your bed"; etc.).

Expressive Subdomain (Talking)*

Pre-Speech Expression

1. Cries or fusses when hungry or wet.
2. Smiles when you smile at him or her.
3. Makes sounds of pleasure (for example, coos, laughs, etc.).
4. Makes nonword baby sounds (that is, babbles).
5. Makes sounds or gestures (for example, waves arms) to get parent's or caregiver's attention.
6. Makes sounds or gestures (for example, shakes head) if he or she wants an activity to stop or keep going.
7. Waves good-bye when another person waves or parent or caregiver tells him or her to wave.
9. Points to object he or she wants that is out of reach.
10. Points or gestures to indicate preference when offered a choice (for example, "Do you want this one or that one?"; etc.).

Beginning to Talk

8. Says "Da-da," "Ma-ma," or another name for parent or caregiver (including parent's or caregiver's first name or nickname).
11. Repeats or tries to repeat common words immediately upon hearing them (for example, ball, car, go, etc.).
12. Names at least three objects (for example, bottle, dog, favorite toy, etc.).
13. Says one-word requests (for example, up, more, out, etc.).
15. Answers or tries to answer with words when asked a question.
16. Names at least 10 objects.
18. Uses phrases with a noun and a verb (for example, "Katie stay"; "Go home"; etc.).
20. Says at least 50 recognizable words.
23. Uses negatives in sentences (for example, "Me no go"; "I won't drink it"; etc.); grammar is not important.
24. Tells about experiences in simple sentences (for example, "Ginger and I play"; "Dan read me a book"; etc.).
26. Says at least 100 recognizable words.

continued on next page

*Subdomain Name on the Parent/Caregiver Rating Form

Table 2.1, *continued*

DOMAINS, SUBDOMAINS, AND CONTENT CATEGORIES FOR VINELAND-II SURVEY FORMS

COMMUNICATION DOMAIN

Expressive Subdomain (Talking)* *continued*

Interactive Speech

14. Uses first names or nicknames of brothers, sisters, or friends, or says their names when asked.
17. States own first name or nickname (for example, Latesha, Little Sister, etc.) when asked.
19. Asks questions by changing inflection of words or simple phrases ("Mine?"; "Me go?"; etc.); grammar is not important.
22. Asks questions beginning with *what* or *where* (for example, "What's that?"; "Where doggie go?"; etc.).
25. Says correct age when asked.
29. Says first and last name when asked.
31. Asks questions beginning with *who* or *why* (for example, "Who's that?"; "Why do I have to go?"; etc.).
35. Asks questions beginning with *when* (for example, "When is dinner?"; "When can we go home?"; etc.).
40. Says month and day of birthday when asked.
45. Says own telephone number when asked.
46. Easily moves from one topic to another in conversation.
47. Stays on topic in conversations; does not go off on tangents.
51. Says complete home address (that is, street or rural route, apartment number, city, and state), with or without zip code, when asked.

Speech Skills

21. Uses simple words to describe things (for example, dirty, pretty, big, loud, etc.).
27. Uses *in, on,* or *under* in phrases or sentences (for example, "Ball go under chair"; "Put it on the table"; etc.).
28. Uses *and* in phrases or sentences (for example, "Mom and Dad"; "I want ice cream and cake"; etc.).
30. Identifies and names most common colors (that is, red, blue, green, yellow, orange, purple, brown, and black).
    SCORING TIP: *Mark a "2" if the individual names 6 to 8 colors; mark a "1" if the individual names 2 to 5 colors; mark a "0" if the individual names 0 or 1 color.*
32. Uses present tense verbs ending in *ing* (for example, "Is singing"; "Is playing"; etc.).
33. Uses possessives in phrases or sentences (for example, "That's her book"; "This is Carlos's ball"; etc.).
34. Uses pronouns in phrases or sentences; must use correct gender and form of the pronoun, but sentences need not be grammatically correct (for example, "He done it"; "They went"; etc.).
36. Uses regular past tense verbs (for example, walked, baked, etc.); may use irregular past tense verbs ungrammatically (for example, "I runned away"; etc.).
37. Uses *behind* or *in front of* in phrases or sentences (for example, "I walked in front of her"; "Terrell is behind you"; etc.).
38. Pronounces words clearly without sound substitutions (for example, does not say "wabbit" for "rabbit," "Thally" for "Sally," etc.).
41. Modulates tone of voice, volume, and rhythm appropriately (for example, does not consistently speak too loudly, too softly, or in a monotone, etc.).
44. Uses *between* in phrases or sentences (for example, "The ball went between the cars"; etc.).
49. Has conversations that last 10 minutes (for example, relates experiences, contributes ideas, shares feelings, etc.).
50. Uses irregular plurals correctly (for example, children, geese, mice, women, etc.).

Expressing Complex Ideas

39. Tells basic parts of a story, fairy tale, or television show plot; does not need to include great detail or recount in perfect order.
42. Tells about experiences in detail (for example, tells who was involved, where activity took place, etc.).
43. Gives simple directions (for example, on how to play a game or how to make something).
    SCORING TIP: *Mark a "2" if the directions are clear enough to follow; mark a "1" if the individual articulates directions but they are not clear enough to follow; mark a "0" if the individual never attempts to articulate directions.*
48. Explains ideas in more than one way (for example, "This was a good book. It was exciting and fun to read"; etc.).
52. Describes a short-term goal and what he or she needs to do to reach it (for example, says, "I want to get an A on my test so I'm going to study hard"; etc.).
53. Gives complex directions to others (for example, to a distant location, for recipe with many ingredients or steps, etc.).
    SCORING TIP: *Mark a "2" if the directions are clear enough to follow; mark a "1" if the individual articulates directions but they are not clear enough to follow; mark a "0" if the individual never attempts to articulate directions.*
54. Describes a realistic long-range goal that can be done in 6 months or more (for example, says "I want to buy a bike, so. I'll babysit and run errands to earn enough money to buy it"; etc.).

continued on next page

*Subdomain Name on the Parent/Caregiver Rating Form

Table 2.1, *continued*

DOMAINS, SUBDOMAINS, AND CONTENT CATEGORIES FOR VINELAND-II SURVEY FORMS

COMMUNICATION DOMAIN

Written Subdomain (Reading and Writing)*

Beginning to Read

1. Identifies one or more alphabet letters as letters and distinguishes them from numbers.
2. Recognizes own name in printed form.
3. Identifies at least 10 printed letters of the alphabet.
6. Identifies all printed letters of the alphabet, upper- and lowercase.
9. Reads at least 10 words aloud.
11. Reads simple stories aloud (that is, stories with sentences of three to five words).

Reading Skills

14. Reads and understands material of at least second-grade level.
15. Puts lists of words in alphabetical order.
17. Reads and understands material of at least fourth-grade level.
20. Reads and understands material of at least sixth-grade level.
23. Reads and understands material of at least ninth-grade level.
24. Reads at least two newspaper articles weekly (print or electronic version).

Writing Skills

4. Prints or writes using correct orientation (for example, in English from left to right; in some languages from right to left or top to bottom).
5. Copies own first name.
7. Prints at least three simple words from example (for example, cat, see, bee, etc.).
8. Prints or writes own first and last name from memory.
10. Prints at least 10 simple words from memory (for example, hat, ball, the, etc.).
12. Prints simple sentences of three or four words; may make small errors in spelling or sentence structure.
13. Prints more than 20 words from memory; may make small spelling errors.
16. Writes simple correspondence at least three sentences long (for example, postcards, thank-you notes, e-mail, etc.).
18. Writes reports, papers, or essays at least one page long; may use computer.
19. Writes complete mailing and return addresses on letters or packages.
21. Edits or corrects own written work before handing it in (for example, checks punctuation, spelling, grammar, etc.).
22. Writes advanced correspondence at least 10 sentences long; may use computer.
25. Writes business letters (for example, requests information, makes complaint, places order, etc.); may use computer.

DAILY LIVING SKILLS DOMAIN

Personal Subdomain (Caring for Self)*

Eating and Drinking

1. Opens mouth when food is offered.
2. Eats solid foods (for example, cooked vegetables, chopped meats, etc.).
3. Sucks or chews on finger foods (for example, crackers, cookies, toast, etc.).
4. Drinks from a cup or glass; may spill.
6. Feeds self with spoon; may spill.
7. Sucks from straw.
10. Feeds self with fork; may spill.
11. Drinks from a cup or glass without spilling.
12. Feeds self with spoon without spilling.
23. Holds spoon, fork, and knife correctly.

Toileting

5. Lets someone know when he or she has wet or soiled diaper or pants (for example, points, vocalizes, pulls at diaper, etc.).
13. Urinates in toilet or potty chair.
15. Asks to use toilet.
16. Defecates in toilet or potty chair.
17. Is toilet-trained during the day.
    SCORING TIP: *Mark "2" if the individual uses the toilet without help and without accidents; mark "1" if the individual needs help, such as with wiping, or has some accidents; mark "0" if the individual always needs help or has frequent accidents.*
20. Is toilet-trained during the night.
33. Finds and uses appropriate public restroom for his or her gender.

continued on next page

*Subdomain Name on the Parent/Caregiver Rating Form

Table 2.1, *continued*

DOMAINS, SUBDOMAINS, AND CONTENT CATEGORIES FOR VINELAND-II SURVEY FORMS

DAILY LIVING SKILLS DOMAIN

Personal Subdomain (Caring for Self)* ***continued***

Dressing

8. Takes off clothing that opens in the front (for example, a coat or sweater); does not have to unbutton or unzip the clothing.
9. Pulls up clothing with elastic waistbands (for example, underwear or sweatpants).
14. Puts on clothing that opens in the front (for example, a coat or sweater); does not have to zip or button the clothing.
18. Zips zippers that are fastened at the bottom (for example, in pants, on backpacks, etc.).
21. Puts shoes on correct feet; does not need to tie laces.
22. Fastens snaps.
26. Buttons large buttons in front, in correct buttonholes.
28. Buttons small buttons in front, in correct buttonholes.
29. Connects and zips zippers that are not fastened at the bottom (for example, in jackets, sweatshirts, etc.).
31. Wears appropriate clothing during wet or cold weather (for example, raincoat, boots, sweater, etc.).

Bathing

24. Washes and dries face using soap and water.
30. Turns faucets on and adjusts temperature by adding hot or cold water.
32. Bathes or showers and dries self.

SCORING TIP: *Mark a "2" if the individual bathes or showers without help, including turning the water on and off; mark a "1" if the individual needs help with any part of bathing or drying or with turning the water on and off; mark "0" if the individual never bathes or showers without help or without reminders.*

Grooming

25. Brushes teeth.

SCORING TIP: *Mark a "2" if the individual brushes teeth without help, including putting toothpaste on the brush, and without being told to brush; mark "1" if the individual needs help brushing or putting toothpaste on the brush or needs frequent reminders; mark "0" if the individual never brushes without help or without being reminded.*

34. Washes and dries hair (with towel or hair dryer).

Health Care

19. Wipes or blows nose using tissue or handkerchief.
27. Covers mouth and nose when coughing and sneezing.
35. Cares for minor cuts (for example, cleans wound, puts on a bandage, etc.).
36. Takes medicine as directed (that is, follows directions on label).
37. Uses thermometer to take own or another's temperature.
38. Seeks medical help in an emergency (for example, recognizes symptoms of serious illness or injury, such as shortness of breath, chest pain, uncontrolled bleeding, etc.).

SCORING TIP: *You may mark "N/O" for No Opportunity if the individual has not been in a medical emergency.*

39. Follows directions for health care procedures, special diet, or medical treatments.

SCORING TIP: *You may mark "N/O" for No Opportunity if the individual does not have a health concern that requires special procedures, diet, or treatments.*

40. Keeps track of medications (nonprescription and prescription) and refills them as needed.
41. Makes appointments for regular medical and dental checkups.

Domestic Subdomain (Caring for Home)*

Safety at Home

1. Is careful around hot objects (for example, the stove or oven, an open fire, etc.).
6. Is careful when using sharp objects (for example, scissors, knives, etc.).

Kitchen Chores

2. Helps with simple household chores (for example, dusts, picks up clothes or toys, feeds pet, etc.).
3. Clears unbreakable items from own place at table.
7. Clears breakable items from own place at table.
8. Helps prepare foods that require mixing and cooking (for example, cake or cookie mixes, macaroni and cheese, etc.).
9. Uses simple appliances (for example, a toaster, can opener, bottle opener, etc.).
10. Uses microwave oven for heating, baking, or cooking (that is, sets time and power setting, etc.).

SCORING TIP: *You may mark "N/O" for No Opportunity if there is no microwave in the home.*

13. Washes dishes by hand, or loads and uses dishwasher.
15. Clears table completely (for example, scrapes and stacks dishes, throws away disposable items, etc.).
17. Prepares basic foods that do not need mixing but require cooking (for example, rice, soup, vegetables, etc.).
19. Uses sharp knife to prepare food.
20. Uses stove or oven for heating, baking, or cooking (that is, turns burners on and off, sets oven temperature, etc.).
21. Prepares food from ingredients that require measuring, mixing, and cooking.
24. Plans and prepares main meal of the day.

*Subdomain Name on the Parent/Caregiver Rating Form

continued on next page

Table 2.1, *continued*

DOMAINS, SUBDOMAINS, AND CONTENT CATEGORIES FOR VINELAND-II SURVEY FORMS

DAILY LIVING SKILLS DOMAIN

Domestic Subdomain (Caring for Home)* *continued*

Housekeeping

4. Cleans up play or work area at end of an activity (for example, finger painting, model building, etc.).
5. Puts away personal possessions (for example, toys, books, magazines, etc.).
11. Puts clean clothes away in proper place (for example, in drawers or closet, on hooks, etc.).
12. Uses tools (for example, a hammer to drive nails, a screwdriver to screw and unscrew screws, etc.).
14. Sweeps, maps, or vacuums floors thoroughly.
    SCORING TIP: *Mark a "2" if the individual mops, sweeps, or vacuums so well that the task does not have to be redone; mark a "1" if the individual doesn't consistently complete the task well; mark "0" if the individual never mops, sweeps, or vacuums, or does the task so poorly that it always needs to be redone.*
16. Uses household products correctly (for example, laundry detergent, furniture polish, glass cleaner, etc.).
18. Cleans one or more rooms other than own bedroom.
22. Washes clothing as needed.
23. Performs maintenance tasks as needed (for example, replaces light bulbs, changes vacuum cleaner bag, etc.).

Community Subdomain (Living in the Community)*

Telephone Skills

1. Demonstrates understanding of function of telephone (for example, pretends to talk on phone, etc.).
2. Talks to familiar person on telephone.
11. Summons to the telephone the person receiving a call or indicates that the person is not available.
24. Makes telephone calls to others, using standard or cell phone/

Rules, Rights, and Safety

5. Is aware of and demonstrates appropriate behavior while riding in car (for example, keeps seat belt on, refrains from distracting driver, etc.).
7. Uses sidewalk (where available) or shoulder of road when walking or using wheeled equipment (skates, scooter, tricycle, etc.).
9. Follows household rules (for example, no running in the house, no jumping on the furniture, etc.).
13. Looks both ways when crossing streets or roads.
15. Demonstrates understanding of right to personal privacy for self and others (for example, while using restroom or changing clothes; etc.).
16. Demonstrates knowledge of what phone number to call in an emergency when asked.
20. Obeys traffic lights and *Walk* and *Don't Walk* signs.
28. Obeys curfew parent or caregiver sets.
35. Demonstrates understanding of right to complain or report legitimate problems when dissatisfied with services or situations.

Time and Dates

8. Demonstrates understanding of function of clock (for example, says, "Clocks tell time"; "What time can we go?"; etc.).
14. Says current day of the week when asked.
17. Tells time using a digital clock or watch.
21. Points to current or other date on calendar when asked.
23. Tells time by the half hour on analog clock (for example, 1:30, 2:00, etc.).
27. Tells time by 5-minute segments on analog clock (for example, 1:05, 1:10, etc.).

Job Skills

33. Obeys time limits for breaks (for example, lunch or coffee breaks, etc.).
36. Notifies school or supervisor when he or she will be late or absent.
39. Earns money at part-time job (that is, at least 10 hours a week) for 1 year.
    SCORING TIP: *Do not mark 1.*
40. Attempts to improve job performance after receiving constructive criticism from supervisor.
    SCORING TIP: *You may mark "N/O" for No Opportunity if the individual has not held a job.*

Computer Skills

10. Demonstrates computer skills necessary to play games or start programs with computer turned on; does not need to turn computer on by self.
    SCORING TIP: *You may mark "N/O" for No Opportunity if there is no computer in the home.*
31. Demonstrates computer skills necessary to carry out complex tasks (for example, word processing, accessing the Internet, installing software, etc.).
    SCORING TIP: *You may mark "N/O" for No Opportunity if there is no computer in the home.*

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*Subdomain Name on the Parent/Caregiver Rating Form

Table 2.1, *continued*

DOMAINS, SUBDOMAINS, AND CONTENT CATEGORIES FOR VINELAND–II SURVEY FORMS

DAILY LIVING SKILLS DOMAIN

Community Subdomain (Living in the Community)* *continued*

Money Skills

4. Counts at least 10 objects, one by one.
6. Demonstrates understanding of the function of money (for example, says, "Money is what you need to buy things at the store"; etc.).
12. Identifies penny, nickel, dime, and quarter by name when asked; does not need to know the value of coins.
18. States value of penny (1 cent), nickel (5 cents), dime (10 cents), and quarter (25 cents).
19. Discriminates between bills of different denominations (for example, refers to $1 bills, $5 bills, etc., in conversation; etc.).
22. Demonstrates understanding that some items cost more than others (for example, says, "I have enough money to buy gum but not a candy bar "; "Which pencil costs less?"; etc.).
26. Carries or stores money safely (for example, in wallet, purse, money belt, etc.).
30. Counts change from a purchase.
32. Evaluates quality and price when selecting items to purchase.
37. Uses savings or checking account responsibly (for example, keeps some money in account, tracks balance carefully, etc.).
41. Manages own money (for example, pays most or all own expenses, uses checks or money orders for purchases as needed, etc.).
43. Budgets for monthly expenses (for example, utilities, rent, etc.).
44. Applies for and uses personal credit card responsibly (for example, does not exceed credit limit, pays on time, etc.).

Restaurant Skills

25. Orders a complete meal in a fast-food restaurant.
    SCORING TIP: *You may mark "N/O" for No Opportunity if the individual has not eaten at a fast-food restaurant.*

Television and Radio

3. Uses TV or radio without help (for example, turns equipment on, accesses channel or station, selects program, etc.).
   SCORING TIP: You may mark "N/O" for No Opportunity if there is no TV or radio in the home.
29. Watches or listens to programs for information (for example, weather report, news, educational program, etc.).
    SCORING TIP: *You may mark "N/O" for No Opportunity if there is no TV or radio in the home.*

Going Places Independently

34. Travels at least 5 to 10 miles to familiar destination (that is, bikes, uses public transportation, or drives self).
38. Travels at least 5 to 10 miles to unfamiliar destination (that is, bikes, uses public transportation, or drives self).

SOCIALIZATION DOMAIN

Interpersonal Relationships Subdomain (Relating to Others)*

Responding to Others

1. Looks at face of parent or caregiver.
2. Watches (that is, follows with eyes) someone moving by crib or bed for 5 seconds or more.
6. Reaches for familiar person when person holds out arms to him or her.
7. Shows preference for certain people and objects (for example, smiles, reaches for or moves toward person or object, etc.).
10. Moves about looking for parent or caregiver or other familiar person nearby.
11. Shows interest in children the same age, other than brothers or sisters (for example, watches them, smiles at them, etc.).

Expressing and Recognizing Emotions

3. Shows two or more emotions (for example, laughs, cries, screams, etc.).
4. Smiles or makes sounds when approached by a familiar person.
8. Shows affection to familiar persons (for example, touches, hugs, kisses, cuddles, etc.).
13. Uses actions to show happiness or concern for others (for example, hugs, pats arm, holds hands, etc.).
14. Shows desire to please others (for example, shares a snack or toy, tries to help even if not capable, etc.).
19. Uses words to express own emotions (for example, "I'm happy"; "I'm scared"; etc.).
22. Uses words to express happiness or concern for others (for example, says "Yeah! You won"; "Are you all right?"; etc.).
24. Recognizes the likes and dislikes of others (for example, says, "Chow likes soccer"; "Susie doesn't eat pizza"; etc.).
25. Shows same level of emotion as others around him or her (for example, does not downplay or overdramatize a situation, etc.).

continued on next page

*Subdomain Name on the Parent/Caregiver Rating Form

Table 2.1, *continued*

DOMAINS, SUBDOMAINS, AND CONTENT CATEGORIES FOR VINELAND-II SURVEY FORMS

SOCIALIZATION DOMAIN

Interpersonal Relationships Subdomain (Relating to Others)* *continued*

Imitating

9. Imitates or tries to imitate parent's or caregiver's facial expressions (for example, smiles, frowns, etc.).
12. Imitates simple movements (for example, claps hands, waves good-bye, etc.).
16. Imitates relatively complex actions as they are being performed by another person (for example, shaving, putting on makeup, hammering nails, etc.).
18. Repeats phrases heard spoken before by an adult (for example, "Honey, I'm home"; "No dessert until you clean your plate"; etc.).
21. Imitates relatively complex actions several hours after watching someone else perform them (for example, shaving, putting on makeup, hammering nails, etc.).

Social Communication

5. Makes or tries to make social contact (for example, smiles, makes noises, etc.).
17. Answers when familiar adults make small talk (for example, if asked, "How are you?" Says, "I'm fine," if told, "You look nice," says "Thank you"; etc.).
26. Keeps comfortable distance between self and others in social situations (for example, does not get too close to another person when talking, etc.).
27. Talks with others about shared interests (for example, sports, TV shows, summer plans, etc.).
28. Starts small talk when meets people he or she knows (for example, says, "How are you?"; "What's up?"; etc.).
30. Chooses not to say embarrassing or mean things or ask rude questions in public.
32. Understands that others do not know his or her thoughts unless he or she says them.
33. Is careful when talking about personal things.
34. Cooperates with others to plan or be part of an activity (for example, a birthday party, sports event, etc.).
35. Demonstrates understanding of hints or indirect cues in conversation (for example, knows that yawns may mean, "I'm bored," or a quick change of subject may mean, "I don't want to talk about that"; etc.).
36. Starts conversations by talking about things that interest others (for example, "Tyrone tells me you like computers"; etc.).

Thoughtfulness

23. Acts when another person needs a helping hand (for example, holds door open, picks up dropped items, etc.).

Friendship

15. Demonstrates friendship-seeking behavior with others the same age (for example, says, "Do you want to play?" or takes another child by the hand, etc.).
20. Has best friend or shows preference for certain friends (of either sex) over others.
29. Meets with friends regularly.
31. Places reasonable demands on friendship (for example, does not expect to be a person's only friend or to have the friend always available, etc.).

Dating

37. Goes on group dates.
38. Goes on single dates.

Play and Leisure Time Subdomain (Playing and Using Leisure Time)*

Playing

1. Responds when parent or caregiver is playful (for example, smiles, laughs, claps hands, etc.).
2. Shows interest in where he or she is (for example, looks or moves around, touches objects or people, etc.).
3. Plays simple interaction games with others (for example, peekaboo, patty-cake, etc.).
4. Plays near another child, each doing different things.
5. Chooses to play with other children (for example, does not stay on the edge of a group or avoid others).
6. Plays cooperatively with one or more children for up to 5 minutes.
7. Plays cooperatively with more than one child for more than 5 minutes.
8. Continues playing with another child with little fussing when parent or caregiver leaves.
10. Plays with others with minimal supervision.
11. Uses common household objects or other objects for make-believe activities (for example, pretends a block is a car, a box is a house, etc.).

continued on next page

*Subdomain Name on the Parent/Caregiver Rating Form

Table 2.1, *continued*

DOMAINS, SUBDOMAINS, AND CONTENT CATEGORIES FOR VINELAND–II SURVEY FORMS

SOCIALIZATION DOMAIN

Play and Leisure Time Subdomain (Playing and Using Leisure Time)* ***continued***

Playing continued

12. Protects self by moving away from those who destroy things or cause injury (for example, those who bite, hit, throw things, pull hair, etc.).
13. Plays simple make-believe activities with others (for example, plays dress-up, pretends to be superheroes, etc.).
14. Seeks out others for play or companionship (for example, invites others home, goes to another's home, plays with others on the playground, etc.).

Sharing and Cooperating

9. Shares toys or possessions when asked.
15. Takes turns when asked while playing games or sports.
16. Plays informal, outdoor group games (for example, tag, jump rope, cathc, etc.).
17. Shares toys or possessions without being asked.
19. Takes turns without being asked.
22. Asks permission before using objects belonging to or being used by another.

Going Places with Friends

21. Goes places with friends during the day with adult supervision (for example, to a shopping mall, park, community center, etc.).
27. Goes places with friends in evening with adult supervision (for example, to a concert, lecture, sporting event, movie, etc.).
29. Goes places with friends during the day without adult supervision (for example, to a shopping mall, park, community center, etc.).
30. Plans fun activities with more than two things to be arranged (for example, a trip to a beach or park that requires planning transportation, food, recreational items, etc.).
31. Goes places with friends in evening without adult supervision (for example, to a concert, lecture, sporting event, movie, etc.).

Playing Games

18. Follows rules in simple games (relay races, spelling bees, electronic games, etc.).
20. Plays simple card or board game based only on chance (for example, Go Fish, Crazy Eights, Sorry™, etc.).
24. Plays simple games that require keeping score (for example, kickball, pickup basketball, etc.).
25. Shows good sportsmanship (that is, follows rules, is not overly aggressive, congratulates other team on winning, and does not get mad when losing).
26. Plays more than one board, card, or electronic game requiring skill and decision making (for example, Monopoly™, Cribbage, etc.).
28. Follows rules in complex games or sports (for example, football, soccer, volleyball, etc.).

Recognizing Social Cues

23. Refrains from entering group when nonverbal cues indicate that he or she is not welcome.

Coping Skills Subdomain (Adapting)*

Manners

2. Says "thank you" when given something.
4. Chews with mouth closed.
5. Says "please" when asking for something.
6. Ends conversations appropriately (for example, says, "Good-bye"; "See you later"; etc.).
7. Cleans or wipes face and hands during and/or after meals.
11. Acts appropriately when introduced to strangers (for example, nods, smiles, shakes hands, greets them, etc.).
12. Changes voice level depending on location or situation (for example, in a library, during a movie or play, etc.).
14. Refrains from talking with food in mouth.
15. Talks with others without interrupting or being rude.

Apologizing

9. Says that he or she is sorry for unintended mistakes (for example, bumping into someone, etc.).
13. Says he or she is sorry after hurting another's feelings.
19. Says he or she is sorry after making unintentional mistakes or errors in judgment (for example, when unintentionally leaving someone out of a game, etc.).

Responsibility

21. Tells parent or caregiver about his or her plans (for example, what time he or she is leaving and returning, where he or she is going, etc.).
24. Follows through with arrangements (for example, if promises to meet someone, meets that person; etc.).
30. Shows respect for co-workers (for example, does not distract or interrupt others who are working, is on time for meetings, etc.).

*Subdomain Name on the Parent/Caregiver Rating Form

continued on next page

Table 2.1, *continued*

DOMAINS, SUBDOMAINS, AND CONTENT CATEGORIES FOR VINELAND-II SURVEY FORMS	
SOCIALIZATION DOMAIN	**Coping Skills (Adapting)*** ***continued***
	Appropriate Social Caution
	22. Chooses to avoid dangerous or risky activities (for example, jumping off high places, picking up a hitchhiker, driving recklessly, etc.).
	25. Stops or stays away from relationships or situations that are hurtful or dangerous (for example, being bullied or made fun of, being taken advantage of sexually or financially, etc.).
	29. Is aware of potential danger and uses caution when encountering risky social situations (for example, binge drinking parties, Internet chat rooms, personal ads, etc.).
	Transitions
	1. Changes easily from one at-home activity to another.
	3. Changes behavior depending on how well he or she knows another person (for example, acts differently with family member than with stranger, etc.).
	8. Responds appropriately to reasonable changes in routine (for example, refrains from complaining, etc.).
	Controlling Impulses
	10. Chooses not to taunt, tease, or bully.
	16. Accepts helpful suggestions or solutions from others.
	17. Controls anger or hurt feelings when plans change for reason(s) that cannot be helped (for example, bad weather, car trouble, etc.).
	20. Shows understanding that gentle teasing with family and friends can be a form of humor or affection.
	23. Controls anger or hurt feelings when he or she does not get his or her way (for example, when not allowed to watch television or attend a party; when suggestion is rejected by friend or supervisor; etc.).
	26. Controls anger or hurt feelings due to constructive criticism (for example, correction of misbehavior, discussion of test score or grade, performance review, etc.).
	28. Thinks about what could happen before making decisions (for example, refrains from acting impulsively, thinks about important information, etc.).
	Keeping Secrets
	18. Keeps secrets or confidences for longer than one day.
	27. Keeps secrets or confidences for as long as needed.
MOTOR SKILLS DOMAIN	**Gross Subdomain (Using Large Muscles)***
	Sitting
	1. Holds head erect for at least 15 seconds when held upright in parent's or caregiver's arms.
	2. Sits supported (for example, in a chair, with pillows, etc.) for at least 1 minute.
	3. Sits without support for at least 1 minute.
	5. Sits without support for at least 10 minutes.
	6. Raises self to sitting position and sits without support for at least 1 minute.
	Walking and Running
	10. Takes at least two steps.
	16. Walks across room; may be unsteady and fall occasionally.
	18. Walks to get around; does not need to hold on to anything.
	20. Runs without falling; may be awkward and uncoordinated.
	21. Walks up stairs, putting both feet on each step; may use railing.
	23. Runs smoothly without falling.
	24. Walks down stairs, facing forward, putting both feet on each step; may use railing.
	28. Walks up stairs, alternating feet; may use railing.
	33. Walks down stairs, alternating feet; may use railing.
	34. Runs smoothly, with changes in speed and direction.

continued on next page

*Subdomain Name on the Parent/Caregiver Rating Form

Table 2.1, *continued*

DOMAINS, SUBDOMAINS, AND CONTENT CATEGORIES FOR VINELAND-II SURVEY FORMS

MOTOR SKILLS DOMAIN

Gross Subdomain (Using Large Muscles)* *continued*

Play Activity

12. Rolls ball while sitting.
13. Climbs on and off low objects (for example, chair, step stool, slide, etc.).
17. Throws ball.
19. Climbs on and off adult-sized chair.
22. Kicks ball.
25. Jumps with both feet off floor.
26. Throws ball of any size in specific direction.
27. Catches beach ball-sized ball with both hands from a distance of 2 or 3 feet.
29. Pedals tricycle or other three-wheeled toy for at least 6 feet.
    SCORING TIP: *You may mark "N/O" for No Opportunity if the individual does not have a tricycle or three-wheeled toy. However, if the individual has such a vehicle but does not ride it for any reason, including parent or caregiver does not think he or she is ready, mark "0".*
30. Jumps or hops forward at least three times.
31. Hops on one foot at least once without falling; may hold on to something for balance.
32. Climbs on and off high objects (for example, jungle gym, 4-foot slide ladder, etc.).
35. Rides bicycle with training wheels for at least 10 feet.
    SCORING TIP: *You may mark "N/O" for No Opportunity if the individual does not have a bicycle. However, if the individual has a bike but does not ride it for any reason, including parent or caregiver does not think he or she is ready, mark "0".*
36. Catches beach-ball sized ball (from at least 6 feet away) with both hands.
37. Hops forward on one foot with ease.
38. Skips at least 5 feet.
39. Catches tennis or baseball-sized ball (from at least 10 feet away), moving to catch it if necessary.
40. Rides bicycle with no training wheels without falling.
    SCORING TIP: *You may mark "N/O" for No Opportunity if the individual does not have a bicycle. However, if the individual has a bike but does not ride it for any reason, including parent or caregiver does not think he or she is ready, mark "0".*

Standing

8. Pulls self to standing position.
11. Stands alone for 1 to 3 minutes.
15. Stands for at least 5 minutes.

Creeping and Crawling

4. Creeps or moves on stomach across floor.
7. Crawls at least 5 feet on hands and knees, without stomach touching floor.
9. Crawls up stairs.
14. Crawls down stairs.

continued on next page

Table 2.1, *continued*

DOMAINS, SUBDOMAINS, AND CONTENT CATEGORIES FOR VINELAND–II SURVEY FORMS

MOTOR SKILLS DOMAIN

Fine Subdomain (Using Small Muscles)* *continued*

Manipulating Objects

1. Reaches for toy or object.
2. Picks up small objects (no larger than 2 inches on any side); may use both hands.
3. Moves object from one hand to the other.
4. Squeezes squeaky toy or object.
5. Picks up small object with thumb and fingers.
6. Removes object (for example, a block or clothespin) from a container.
7. Puts object (for example, a block or clothespin) into container.
8. Turns pages of board, cloth, or paper book, one at a time.
9. Stacks at least four small blocks or other small objects; stack must not fall.
10. Opens doors by turning doorknobs.
11. Unwraps small objects (for example, gum or candy).
12. Completes simple puzzle of at least two pieces or shapes.
13. Turns book or magazine pages one by one.
14. Uses twisting hand-wrist motion (for example, winds up toy, screws/unscrews lid of jar, etc.).
17. Builds three-dimensional structures (for example, a house, bridge, vehicle, etc.) with at least five small blocks.
19. Glues or pastes two or more pieces together (for example, for art or science projects, etc.).
20. Uses tape to hold things together (for example, torn page, art project, etc.).
30. Ties knot.
32. Unlocks dead-bolt, key, or combination locks that require twisting.
    SCORING TIP: *You may mark "N/O" for No Opportunity if there are no dead-bolt, key, or combination locks in the home.*
35. Ties secure bow.

Drawing and Using Scissors

15. Holds pencil in proper position (not with fist) for writing or drawing.
16. Colors simple shapes; may color outside lines.
18. Opens and closes scissors with one hand.
21. Draws more than one recognizable form (for example, person, house, tree, etc.).
    SCORING TIP: *Mark a "2" if the individual draws two or more recognizable forms; mark a "1" if the individual draws one form; mark a "0" if the individual does not draw any recognizable forms.*
22. Makes recognizable letters or numbers.
23. Draws circle freehand while looking at example.
24. Uses scissors to cut across paper along a straight line.
25. Colors simple shapes; colors inside the lines.
26. Cuts out simple shapes (for example, circles, squares, rectangles, etc.).
27. Uses eraser without tearing paper.
28. Draws square freehand while looking at example.
29. Draws triangle freehand while looking at example.
31. Draws straight line using a ruler or straightedge.
33. Cuts out complex shapes (for example, stars, animals, alphabet letters, etc.).

Using Keyboard

34. Uses keyboard, typewriter, or touch screen to type name or short words; may look at keys.
    SCORING TIP: *You may mark "N/O" for No Opportunity if there is no computer in the home.*
36. Uses a keyboard to type up to 10 lines; may look at the keys.
    SCORING TIP: *You may mark "N/O" for No Opportunity if there is no computer in the home.*

Note: Alternate names for subdomains on the Parent/Caregiver Rating Form are presented in parentheses below each subdomain name in the subdomain column.

Using Content Categories to Design Questions and Probes

Interviewers may use the following step-by-step procedures to prepare to administer the Vineland–II Survey Interview Form. A fictitious child, Ahmad, with a chronological age of 4 years 9 months on the test date, will be used to help illustrate the procedures.

Before beginning, you must determine the starting point for the individual you are assessing. The starting point generally is based on chronological age. (The procedure to determine the starting point is discussed in the Determining the Starting Point section later in this chapter.)

1. Review the items around the starting point to determine an appropriate content category with which to enter the subdomain. For example, if Ahmad's starting point for the Play and Leisure Time Subdomain is Item 13, "Plays simple make-believe activities with others (for example, plays dress-up, pretends to be superheroes, etc.)," which is in the Playing content category, you could assume that based on the organization of the items, he has likely mastered items in the Playing category that precede the start point. (By asking a general question, you could verify that your assumption is correct.)
2. Next, formulate a general question related to the items around the starting point, but not too closely tied to the details of specific items. For example, one might ask, "When Ahmad plays with others, how do they play?" However, if Ahmad does not yet play with other children (indicating that your assumption that he had passed items preceding his start point is not correct), this general question will not yield much information. A more effective question might be, "What does Ahmad like to do when he plays?" This question could provide information that would enable you to score a number of related items in the Playing content category, such as how Ahmad plays with others and the games or activities he enjoys. The goal of the general question is to prompt the respondent to give you the specific information you need to score the items in a particular content category.
3. Frequently you will need to ask specific questions after the general question to score an item. You must decide which items can be scored based on the response to a general question and which items require further probing. Often you can simply ask the respondent to give examples of the individual's skills or behaviors. For example, a general question for the content category Manners, in the Coping Subdomain, might be, "Tell me about Ahmad's manners." The respondent might say, "Oh, he is so polite to everyone, always saying please and thank you." You cannot assume from this response that Ahmad "talks with others without interrupting or being rude" (Item 15) or "cleans or wipes his face and hands during or after meals (Item 7). Further probes are necessary to score these items, such as, "What does Ahmad do when he wants something and other people are speaking?" or "What does Ahmad do when he gets food on his face or hands while he is eating?'

Be sure that you have complete information about the individual's activities related to an item before scoring it. Although you may be able to score some items based on the respondent's answer to a general question, you may need to probe with more specific questions until you are confident that you know the individual's activities or behavior. Ask the respondent to give examples of specific skills the individual does or does not demonstrate. The response must clearly indicate whether the individual independently performs the activity described by a particular item. For example, a respondent might state that a child is helpful. Ask what the child does or says to be helpful. Such information might help you determine whether the child is genuinely helpful or simply wants praise.

Figure 2.3 provides a portion of a sample interview that begins with a general question, followed by specific probes to obtain specific, detailed information. Scoring based on the interview is also included.

After obtaining all information needed to score items related to the general area being probed, proceed to other items below, at, or above the starting point. Continue until a basal and ceiling for the subdomain have been obtained and all items in between have been scored. (Basal and ceiling rules are discussed in more detail later in this chapter.)

Figure 2.3 Interview with Ahmad's Caregiver and scored section of his Survey Interview Form record booklet

Interviewer: How are Ahmad's table manners?

Caregiver: Well, he needs some work in that area. He's messy and it's hard for him to sit at the table for a long period of time. He gets restless and wants to go play.

Interviewer: Can you describe a typical mealtime for me? What kinds of reminders does Ahmad need, in terms of table manners, during a meal?

Caregiver: Sure. We always sit down together for dinner. I usually cut Ahmad's meat into smaller pieces for him. So first I have to remind him to be patient while I do that. He's also very talkative, so a lot of times I have to remind him not to talk with his mouth full. He also ends up getting quite a bit of food on the table or on his shirt somehow, so I guess I try to remind him to be neat.

Interviewer: What does he do if he gets food on his shirt or around his mouth?

Caregiver: Well, he's pretty good about using a napkin if it's in front of him, although he won't take the initiative to get one himself.

Interviewer: What would he do if there were napkins across the table from him but he couldn't reach them himself?

Caregiver: Then he might ask for one to be passed to him, and we often have to remind him to say "the magic word": please. It's the same with milk or something else he wants from across the table. He's starting to get better at saying please and thank you, but it still needs some work.

Interviewer: It sounds like Ahmad is coming along in the manners department. On another front, what's he like when some unexpected event happens that interferes with something he really wants to do, like a family trip to the beach being cancelled because of a big rainstorm, or something like that.

Caregiver: Well, he might get pretty upset, at least at first. He's pretty good-natured, you know, so after a brief crying bout he'd be OK—a hug and a joke will bring him out of it.

Interviewer: When you give Ahmad these reminders about his manners, or when you're criticizing something else that Ahmad does, how does he react?

Caregiver: He's used to it, so it's not a problem. I remind him to say "please" in a teasing way, and he'll laugh and say it more times than he needs to just because he's being funny. In general, he's great at taking constructive criticism as long as I'm explaining why he should do something a certain way instead of just nagging him.

Interviewer: Are there times when Ahmad might ask for something and not get what he wants?

Caregiver: Of course! We might go shopping and he will pick something up and decide he has to have it. This situation comes up a lot at the toy store.

Interviewer: What does Ahmad do if he doesn't get the toy he wants?

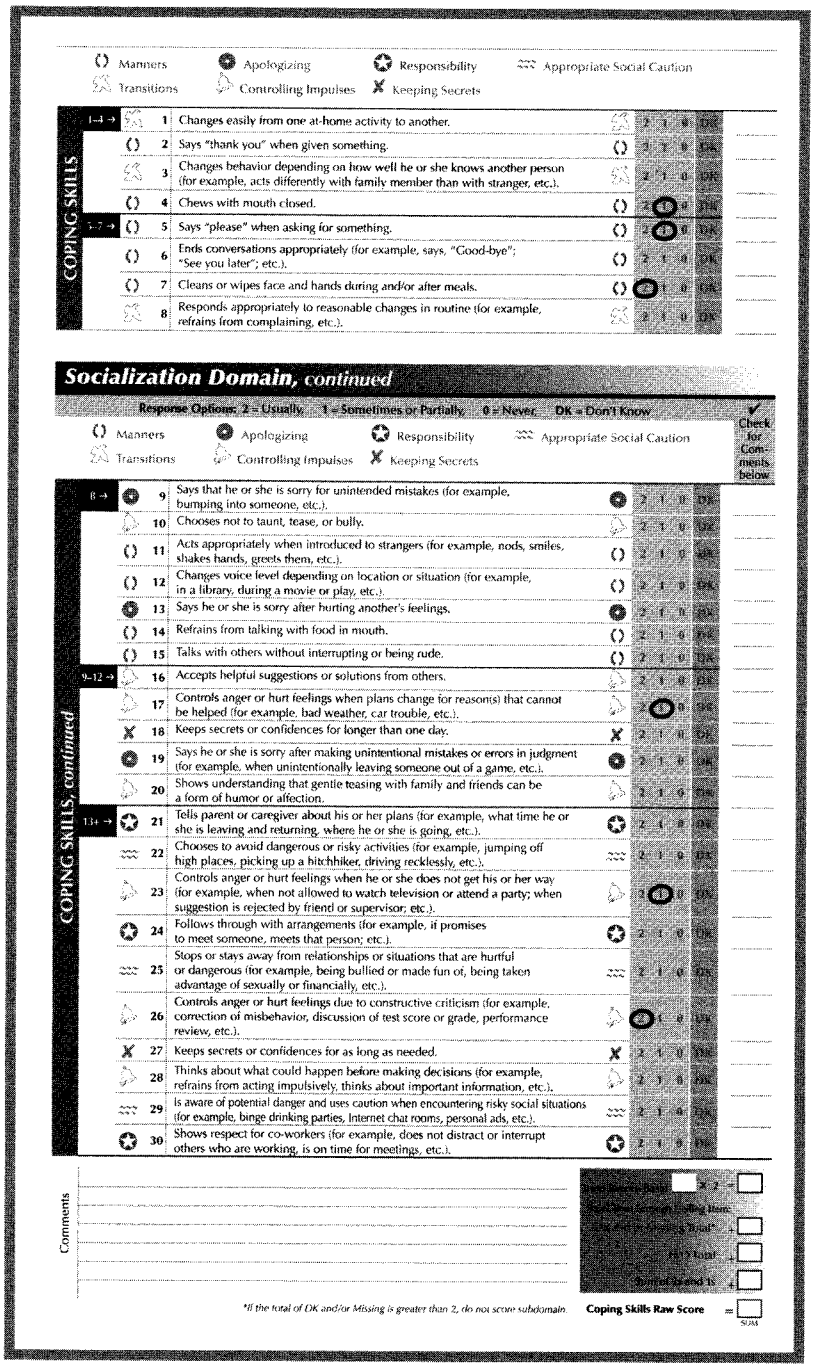
Caregiver: Well, sometimes he's just trying to see if I'm in the right mood to let him have it, and he's expecting me to say no, so that works out fine—he just puts back the toy. On occasion though, he's been known to have a temper tantrum in the aisle. Last week we actually had to leave the store so that he would calm down. He was crying and yelling; it was quite a scene. It's not usually like that, though. Only once in a while if he wants something badly enough.

Interviewer: How is Ahmad in general with dealing with anger or hurt feelings?

Caregiver: Usually he's pretty even tempered, so it's not even an issue. But on occasion, like in the toy store, or if he's playing with his sister and they get into a fight over a toy, he cries and shouts quite a bit.

Interviewer: When Ahmad is playing with his sister or with other children, can you describe the way he makes decisions? For example, if he's trying to decide whether or not to share a toy, or if he wants to play with a toy that someone else has, how does he make that decision?

Caregiver: Well, he's pretty impulsive. He will walk over and take something that another child is playing with and of course the result is that the other child gets mad and they get into a struggle over the toy. He doesn't always think things through. Sometimes he will share his toys willingly, but it really depends on his mood, not necessarily something he has thought through and come to a decision about.


Manners
Apologizing
Responsibility
Appropriate Social Caution
Transitions
Controlling Impulses
Keeping Secrets
COPING SKILLS
1 Changes easily from one at-home activity to another.
2 Says "thank you" when given something.
3 Changes behavior depending on how well he or she knows another person (for example, acts differently with family member than with stranger, etc.).
4 Chews with mouth closed.
5 Says "please" when asking for something.
6 Ends conversations appropriately (for example, says, "Good-bye"; "See you later"; etc.).
7 Cleans or wipes face and hands during and/or after meals.
8 Responds appropriately to reasonable changes in routine (for example, refrains from complaining, etc.).
Socialization Domain, continued
Response Options: 2 = Usually, 1 = Sometimes or Partially, 0 = Never, DK = Don't Know
Check for Comments below
COPING SKILLS, continued
9 Says that he or she is sorry for unintended mistakes (for example, bumping into someone, etc.).
10 Chooses not to taunt, tease, or bully.
11 Acts appropriately when introduced to strangers (for example, nods, smiles, shakes hands, greets them, etc.).
12 Changes voice level depending on location or situation (for example, in a library, during a movie or play, etc.).
13 Says he or she is sorry after hurting another's feelings.
14 Refrains from talking with food in mouth.
15 Talks with others without interrupting or being rude.
16 Accepts helpful suggestions or solutions from others.
17 Controls anger or hurt feelings when plans change for reason(s) that cannot be helped (for example, bad weather, car trouble, etc.).
18 Keeps secrets or confidences for longer than one day.
19 Says he or she is sorry after making unintentional mistakes or errors in judgment (for example, when unintentionally leaving someone out of a game, etc.).
20 Shows understanding that gentle teasing with family and friends can be a form of humor or affection.
21 Tells parent or caregiver about his or her plans (for example, what time he or she is leaving and returning, where he or she is going, etc.).
22 Chooses to avoid dangerous or risky activities (for example, jumping off high places, picking up a hitchhiker, driving recklessly, etc.).
23 Controls anger or hurt feelings when he or she does not get his or her way (for example, when not allowed to watch television or attend a party; when suggestion is rejected by friend or supervisor; etc.).
24 Follows through with arrangements (for example, if promises to meet someone, meets that person; etc.).
25 Stops or stays away from relationships or situations that are hurtful or dangerous (for example, being bullied or made fun of, being taken advantage of sexually or financially, etc.).
26 Controls anger or hurt feelings due to constructive criticism (for example, correction of misbehavior, discussion of test score or grade, performance review, etc.).
27 Keeps secrets or confidences for as long as needed.
28 Thinks about what could happen before making decisions (for example, refrains from acting impulsively; thinks about important information, etc.).
29 Is aware of potential danger and uses caution when encountering risky social situations (for example, binge drinking parties, Internet chat rooms, personal ads, etc.).
30 Shows respect for co-workers (for example, does not distract or interrupt others who are working, is on time for meetings, etc.).
Comments
*If the total of DK and/or Missing is greater than 2, do not score subdomain.
Coping Skills Raw Score

Completing the Front Cover of the Record Booklet

Before you meet with the respondent to begin the interview, fill in the biographical information about the individual on the front cover of the record booklet (see **Figure 2.4**). Be sure to record the results of other tests, the individual's present classification or diagnosis, if any, and the reason for the interview. Record the date of the interview and the individual's birth date in years, months, and days, and compute his or her chronological age as explained earlier in this chapter.

Space is also included for recording the age used for starting points and the classification of that age (chronological, mental, or social). Instructions for determining the starting points are given in the next section.

Record the respondent's name, sex, and relationship to the individual being evaluated: for example, parent or other caregiver, or job title if the individual lives in a residential facility and the respondent is a staff member of that facility. The interviewer should be identified by name and position.

Determining the Starting Point

For individuals without disabilities, the starting point for each subdomain in the Survey Interview Form is usually based on chronological age. Do not round up chronological age when determining the starting point. For example, for a child between the ages of 5:0:0 and 5:11:30, use the starting point for age 5; a child aged 5:11:30 would *not* be rounded to 6. Starting points are indicated on the record booklet by labeled arrows pointing to the age-appropriate starting items. **Figure 2.5** shows that the starting point in the Expressive Subdomain for a 7-year-old is Item 45. Use the same starting point for all subdomains.

In some cases it might be necessary to use a starting point lower than the individual's chronological age because of suspected developmental delays or deficits in one or more subdomains. Use the lower starting point for all subdomains administered. Interviewers should select starting points based on clinical judgment and experience. For individuals with mental retardation or other disabilities, the starting point is usually based on a best estimate of either mental age or social age obtained from the results of a previously administered standardized test. Whether the starting point is based on chronological age, mental age, or social age, the starting point for a person of a given age (say, mental age or social age of 3) would be the item designated in the record booklet for the chronological age of the same level (3).

Figure 2.4 Completed front page of the Survey Interview Form record booklet

About the Individual:

Name: Parker Reed

Sex: M ID: Grade (if applicable): 3

Highest Grade Completed (if applicable):

School or Other Facility (if applicable):

Present Classification or Diagnosis: None

Language Spoken at Home: English

Age:	Year	Month	Day	Age Used for Starting Points: 8
Interview Date:	2005	2	11	Type (circle one): (Chronological)
Birth Date:	1996	4	4	Mental
Chronological Age:	8	10	7	Social

Data from Other Tests:	Intelligence	Achievement	Adaptive Behavior	Other

Reason for the Interview: Problems adjusting to new school

Vineland-II
Adaptive Behavior Scales

Record Booklet

Survey Interview Form

Sara S. Sparrow, Domenic V. Cicchetti, and David A. Balla

A revision of the *Vineland Social Maturity Scale* by Edgar A. Doll

About the Respondent:

Name: Lisa Reed

Sex: F Telephone: 555-782-4444

Relationship to Individual: Mother

About the Interviewer:

Name: Rose Schultz

Position: Psychologist

Sex: F

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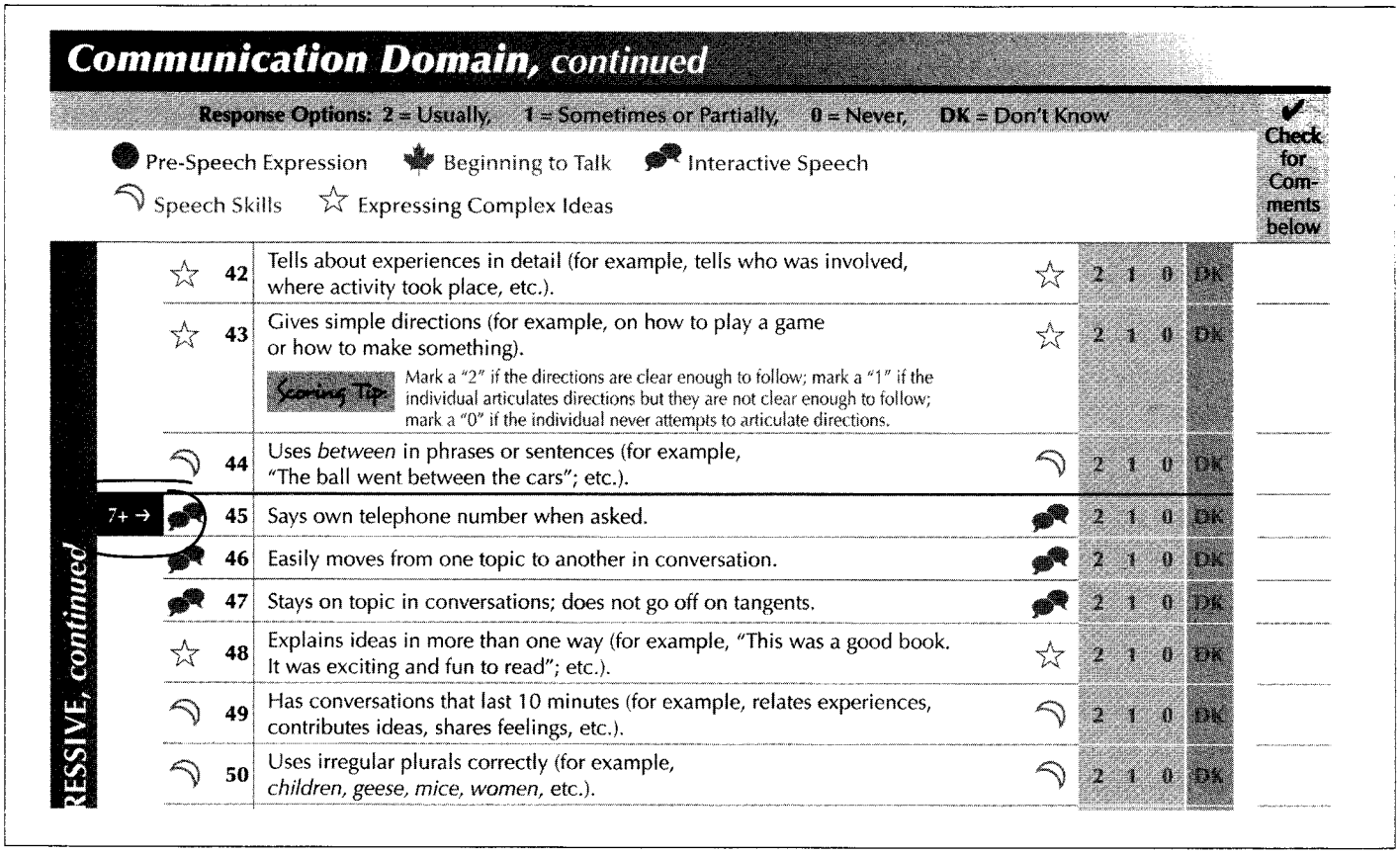
A 0 9 8 7 6 5 4 3 2 1

Product Number: 31012

Figure 2.5 Survey Interview Form page showing start point in the Expressive Subdomain for child aged 7 years



Communication Domain, continued

Response Options: 2 = Usually, 1 = Sometimes or Partially, 0 = Never, DK = Don't Know

Pre-Speech Expression · Beginning to Talk · Interactive Speech · Speech Skills · Expressing Complex Ideas

						✔ Check for Comments below
RESSIVE, continued						
☆	42	Tells about experiences in detail (for example, tells who was involved, where activity took place, etc.).	☆	2 1 0	DK	
☆	43	Gives simple directions (for example, on how to play a game or how to make something). Scoring Tip: Mark a "2" if the directions are clear enough to follow; mark a "1" if the individual articulates directions but they are not clear enough to follow; mark a "0" if the individual never attempts to articulate directions.	☆	2 1 0	DK	
	44	Uses *between* in phrases or sentences (for example, "The ball went between the cars"; etc.).		2 1 0	DK	
7+ →	45	Says own telephone number when asked.		2 1 0	DK	
	46	Easily moves from one topic to another in conversation.		2 1 0	DK	
	47	Stays on topic in conversations; does not go off on tangents.		2 1 0	DK	
☆	48	Explains ideas in more than one way (for example, "This was a good book. It was exciting and fun to read"; etc.).	☆	2 1 0	DK	
	49	Has conversations that last 10 minutes (for example, relates experiences, contributes ideas, shares feelings, etc.).		2 1 0	DK	
	50	Uses irregular plurals correctly (for example, *children, geese, mice, women,* etc.).		2 1 0	DK	

Administering the Survey Interview Form

Administer the subdomains and domains of the Survey Interview Form in the order presented in the record booklet. Do not administer the Domestic and Community Subdomains or the Coping Subdomain if the individual is younger than 1 year of age. Do not administer the Written Subdomain if the individual is younger than 3 years of age. The content in these subdomains is not appropriate for individuals younger than the ages specified. **Table 2.2** indicates the age ranges appropriate for each subdomain and whether the subdomain is optional. Complete each subdomain and domain before proceeding to the next.

The *Check for Comments Below* column, provided to the right of the item scores, allows you to note items for which you have comments. When you have completed administration of that subdomain, you can write comments about the item(s) in question in the space provided.

Table 2.2 Vineland–II Subdomain and Subscale Administration Guide

Subdomain or Subscale	Age Range of Norms	Required or Optional
Receptive	0:0:0 thru 90:0:0	Required
Expressive	0:0:0 thru 90:0:0	Required
Written*	3:0:0 thru 90:0:0	Required
Personal	0:0:0 thru 90:0:0	Required
Domestic	1:0:0 thru 90:0:0	Required
Community	1:0:0 thru 90:0:0	Required
Interpersonal Relationships	0:0:0 thru 90:0:0	Required
Play and Leisure Time	0:0:0 thru 90:0:0	Required
Coping Skills	1:0:0 thru 90:0:0	Required
Gross	0:0:0 thru 6:11:30	Required
	50:0:0 thru 90:0:0	Optional
Fine	0:0:0 thru 6:11:30	Required
	50:0:0 thru 90:0:0	Optional
Internalizing	3:0:0 thru 90:0:0	Optional
Externalizing	3:0:0 thru 90:0:0	Optional
Other	3:0:0 thru 90:0:0	Optional

*Although norms are not available for individuals younger than 3 years, this subdomain may provide important clinical information when autism spectrum disorders are suspected.

Administering the Maladaptive Behavior Domain

As noted previously, when problem behaviors may be interfering with the adaptive behavior of an individual aged 3 years or older, the examiner may choose to administer the optional Maladaptive Behavior Domain. When administered, the maladaptive behavior sections should follow the three or four adaptive behavior domains. For the Maladaptive Behavior Index, which measures less severe problem behaviors, examiners must administer all of the subscales to obtain derived scores for the composite score. Because all items in a subscale are administered, there are no starting points or basal and ceiling rules. Examiners may also choose to administer the Maladaptive Critical Items, which measure more severe problem behaviors. No derived scores are available for the Maladaptive Critical Items. The examiner simply considers the items in the overall interpretation of the individual's performance.

Introduce the maladaptive behavior sections with a statement such as, "From time to time, individuals exhibit behaviors that are considered undesirable." It is often desirable to remind parents to think of their child's behavior compared to other children of about the same age. General questions and probes are not needed. Describe the behavior in each item of the maladaptive behavior sections, and ask the parent or caregiver to say whether the individual usually, sometimes, or never engages in the activity.

The item scores 2, 1, and 0 are applied to the Maladaptive Behavior Index and the Maladaptive Critical Items. Whereas a high score on adaptive behavior items reflects more advanced development, a high score on maladaptive behavior items reflects more negative behaviors. The scoring criteria for the maladaptive behavior sections are included in Appendix E. When assigning item scores, the interviewer must:

- Score 2 if the individual usually or habitually engages in the activity described by the item
- Score 1 if the individual sometimes engages in the activity described by the item
- Score 0 if the individual never or very seldom engages in the activity described by the item

Mark a score by circling a 2, 1, or 0 in the box to the right of the item. Scores of N/O *(No Opportunity)* and DK *(Don't Know)* are not permitted for the maladaptive behavior sections.

In addition to a score assigned according to frequency of the behavior, the items in the Maladaptive Behavior Critical Items section are to be rated for intensity: Severe or Moderate. (If the frequency score is 0 because the individual never engages in the activity, give no intensity rating.) To rate the intensity of a Maladaptive Critical Item, ask the respondent to give examples of the behavior exhibited by the individual. If, for example, an individual occasionally "Displays behaviors that cause injury to self," the examiner scores the item 1 for frequency; if the behaviors, when they occur, are intense enough to be dangerous, the examiner gives an intensity rating of Severe. If the individual merely pinches himself or herself, circle M for Moderate. Although normative data are not available for intensity ratings, clinical interpretations of the ratings may be made. It is suggested that examples of the behavior exhibited by the individual be recorded under Comments.

Scoring the Survey Interview Form Items

The scoring information below must be followed carefully to obtain accurate, valid scores. Instructions for finding the basal and ceiling items are in the Establishing the Basal and Ceiling section later in this chapter.

The Vineland–II Survey Interview Form items are scored according to whether the activity described by the item is:

- Usually or habitually performed without physical help or reminders (score 2)
- Performed sometimes or partially without physical help or reminders (score 1)
- Never or very seldom performed or never performed without help or reminders (score 0)

A score of *N/O* for *No Opportunity* is assigned when the activity is not performed because of limiting circumstances. A score of *DK* for *Don't Know* is assigned when the respondent has no knowledge of whether the individual performs the activity. The score for each item is recorded in the record booklet in the boxes to the right of the items.

Appendix E provides detailed scoring criteria for each item in the Vineland–II Survey Interview Form. Consult Appendix E throughout the interview. For example, the criterion for the item "Uses common household objects or other objects for make-believe activities (for example, pretends a block is a car, a box is a house, etc.) is "The individual must use the objects to represent something else."

Certain items are labeled *Do not mark 1* or *N/O may be scored* in Appendix E and in the record booklet (see **Figure 2.6**).

A score of 2 signifies any of the following. Remember that a score of 2 is based on the individual's *actual independent performance of an activity,* not whether he or she is capable of performing it.

- The individual performs the activity satisfactorily and habitually without physical help or reminders. (Remember, the issue is whether the individual *does* perform rather than *can* perform the activity.)
- The individual performs the activity only occasionally because the opportunity to perform it occurs only occasionally; but, whenever the opportunity occurs, the individual performs it habitually (for example, going to a movie or concert with friends without adult supervision, or taking turns while playing games).
- The individual performed the behavior at a younger age but now has outgrown it (for example, using one-word requests such as "up" or "out" to express wants, or riding a bike with training wheels). This is to be distinguished from an individual who no longer performs an age-appropriate activity, such as a child who routinely and successfully cleared breakable items from his or her place at the table without being reminded at age 7 but does so now at age 12 only after repeated reminders. The child would have scored 2 for clearing breakable items without reminders at age 7, but scores 0 for the same activity at age 12.
- The activity is usually performed, but in a somewhat different way because of a disability. (For example, an individual with a hearing impairment uses sign language or a telecommunication device instead of speaking, or an individual with a visual impairment uses braille.) This is to be distinguished from an activity that cannot be performed because of a physical or sensory disability, which should be scored 0.

If an item contains more than one activity or behavior connected with the word "and," *each activity must be usually or habitually performed for the item to receive a score of 2.* For example, for the item "Turns faucets on *and* adjusts temperature by adding hot or cold water," the individual must usually or habitually both turn the faucets on and adjust the water temperature to receive a score of 2. If the individual turns only the cold water on, or adjusts the water temperature only after someone else turns the faucets on, he or she receives a score of 1.

If an item contains more than one activity or behavior connected with the word "or," *habitual or usual performance of any of the activities or behaviors receives a score of 2.* For example, for the item "Watches *or* listens to programs for information," the individual either could watch television, listen to the radio, or do both to receive a score of 2.

A score of 1 signifies any of the following:

- The individual is just beginning to perform the activity (for example, the individual is beginning to smile and vocalize to initiate social contact, but still mainly reacts to the parent's or caregiver's attention, or the individual is beginning to walk up stairs but still crawls at times).
- The individual performs the activity adequately at times but not habitually (for example, the individual follows household rules occasionally but not routinely).
- The individual performs only part of the activity with success (for example, the individual informs the parent or caregiver that he or she is going to play with a friend but doesn't say where).

A score of 1 should not be assigned to items labeled *Do Not Mark 1.*

A score of 0 signifies that the individual never or very seldom performs the activity, or never performs it without physical help or reminders. *If the individual does not perform an activity, score 0 regardless of the reason.*

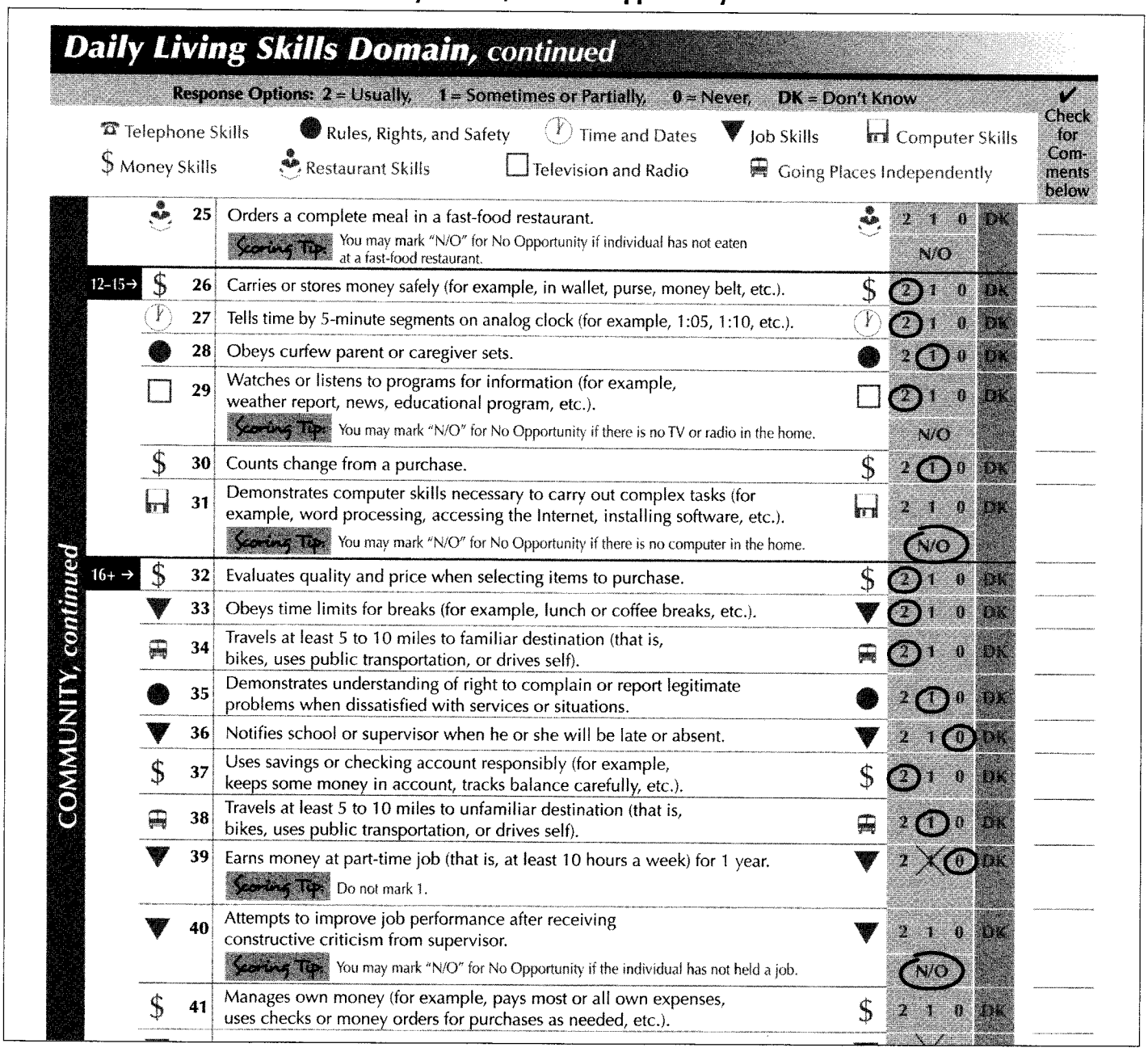
A score of 0 must also be assigned when the following conditions are reported by the respondent:

- The individual is too young or immature to perform the activity.
- The activity is beyond the individual's capabilities.
- The individual can perform the activity but seldom does so.
- A physical or sensory disability prohibits performance of the activity (for example, a physical disability prohibits the individual from engaging in sports).
- The activity is beyond the individual's physical capabilities (for example, the individual is not tall enough to reach the pedals of a bicycle and therefore does not ride one).
- The individual is not permitted to perform the activity (such as going places during the day without adult supervision).
- The individual is not asked to perform the activity (such as clearing the table).
- Another person always performs the activity for the individual (for example, taking his or her temperature or putting away clean laundry).
- The activity has not been started (such as toilet training) or tried (such as eating solid food).

- The individual has not been taught to perform the activity (such as using table manners).
- The individual is unaware of the necessity of the activity (such as following safety rules).
- The individual does not perform the activity because of lack of interest (for example, playing games).
- The individual relies on the caregiver to perform the activity (such as initiating social communication).

A score of N/O for *No Opportunity* is permitted only when *N/O May Be Scored* is printed as a Scoring Tip with the item (see **Figure 2.6**). Criteria for scoring N/O for such items are in the Scoring Tip and in Appendix E. Typically, a score of N/O signifies that performance of the activity in the item requires an object that is not available in the individual's environment, thereby prohibiting the performance. For example, for the item "Uses microwave oven for heating, baking, or cooking," N/O may be scored if there is no microwave in the individual's home. Television sets, bicycles, and computers are other examples of such objects. In-depth probing may be required to determine the presence or absence of such objects in the individual's environment. A score of N/O signifies that No Opportunity is the only reason the individual does not perform the activity. If the individual is too young to use the microwave, even if there is no microwave, score the item 0 rather than N/O.

Figure 2.6 Survey Interview Form page for an individual aged 15, showing items accompanied by the instruction "Do not mark 1" and "You may mark N/O for No Opportunity"



Daily Living Skills Domain, continued

Response Options: 2 = Usually, 1 = Sometimes or Partially, 0 = Never, DK = Don't Know

Telephone Skills · Rules, Rights, and Safety · Time and Dates · Job Skills · Computer Skills · Money Skills · Restaurant Skills · Television and Radio · Going Places Independently

✔ Check for Comments below

COMMUNITY, continued

	25	Orders a complete meal in a fast-food restaurant. Scoring Tip: You may mark "N/O" for No Opportunity if individual has not eaten at a fast-food restaurant.		2 1 0 DK N/O	
12–15→	26	Carries or stores money safely (for example, in wallet, purse, money belt, etc.).	$	(2) 1 0 DK	
	27	Tells time by 5-minute segments on analog clock (for example, 1:05, 1:10, etc.).		(2) 1 0 DK	
	28	Obeys curfew parent or caregiver sets.		2 (1) 0 DK	
	29	Watches or listens to programs for information (for example, weather report, news, educational program, etc.). Scoring Tip: You may mark "N/O" for No Opportunity if there is no TV or radio in the home.		(2) 1 0 DK N/O	
	30	Counts change from a purchase.	$	2 (1) 0 DK	
	31	Demonstrates computer skills necessary to carry out complex tasks (for example, word processing, accessing the Internet, installing software, etc.). Scoring Tip: You may mark "N/O" for No Opportunity if there is no computer in the home.		2 1 0 DK (N/O)	
16+ →	32	Evaluates quality and price when selecting items to purchase.	$	(2) 1 0 DK	
	33	Obeys time limits for breaks (for example, lunch or coffee breaks, etc.).		(2) 1 0 DK	
	34	Travels at least 5 to 10 miles to familiar destination (that is, bikes, uses public transportation, or drives self).		(2) 1 0 DK	
	35	Demonstrates understanding of right to complain or report legitimate problems when dissatisfied with services or situations.		2 (1) 0 DK	
	36	Notifies school or supervisor when he or she will be late or absent.		2 1 (0) DK	
	37	Uses savings or checking account responsibly (for example, keeps some money in account, tracks balance carefully, etc.).	$	(2) 1 0 DK	
	38	Travels at least 5 to 10 miles to unfamiliar destination (that is, bikes, uses public transportation, or drives self).		2 (1) 0 DK	
	39	Earns money at part-time job (that is, at least 10 hours a week) for 1 year. Scoring Tip: Do not mark 1.		2 X (0) DK	
	40	Attempts to improve job performance after receiving constructive criticism from supervisor. Scoring Tip: You may mark "N/O" for No Opportunity if the individual has not held a job.		2 1 0 DK (N/O)	
	41	Manages own money (for example, pays most or all own expenses, uses checks or money orders for purchases as needed, etc.).	$	2 1 0 DK	

A score of DK or *Don't Know* signifies that the respondent has no knowledge of the individual's performance of a given activity. DK should be used only for items describing activities that usually occur in settings in which the respondent never has the opportunity to observe, such as a school or library. Score 0 if the behavior would occur in the individual's home, but the parent or caregiver has no knowledge of its occurrence. (It is assumed that if the behavior should be occurring at home but the parent is not aware of it, the individual likely is not performing it.) DK should be scored only after in-depth probing to determine that the respondent has no knowledge of the individual's performance of the activity. Frequently, use of examples from the respondent's previous discussion of the individual can jog the respondent's memory of the behavior in question.

Establishing the Basal and Ceiling

On a subdomain, a *basal* is established when the individual usually or habitually performs all the activities described in four consecutive items (that is, the individual receives a score of 2 on four consecutive items). The *basal item* is the *highest* item in the *highest* set of four consecutive items receiving a score of 2. Similarly, a subdomain *ceiling* is established when four consecutive items are scored 0, and the *ceiling item* is the *lowest* item in the *lowest* such set of four consecutive items with scores of 0.

In the semistructured interview, a basal and ceiling may be established at any time during the administration of a subdomain. The interviewer may need to administer items before the starting point to establish a basal.

In some cases it might be impossible to establish a basal or ceiling. If all items from the first item in the subdomain have been scored without four consecutive scores of 2 being assigned, there is no basal for the subdomain, and the Item 1 is treated as the basal item when computing subdomain raw scores. If items up to the last item in a subdomain have been scored without the assignment of four consecutive scores of 0, there is no ceiling for the subdomain, and the last item is treated as the ceiling item.

The Vineland–II Survey Interview Form basal and ceiling rules are somewhat different from those of other individually administered assessment instruments. Because the items are not administered in the order in which they appear in the record booklet, the interviewer does not begin with a starting item and proceed forward or backward, item by item, until a basal and ceiling are established. After you administer each subdomain, check that a basal and ceiling have been established and that all items in between have been scored. If a basal or ceiling has not been established or there are unscored items between the basal and ceiling, continue to question the respondent until the necessary items have been scored.

Figures 2.7 through 2.10 illustrate application of the basal and ceiling rules to the Daily Living Skills and Communication Domains. In **Figure 2.7**, a basal and ceiling were established without complication. **Figure 2.8** is an example in which items before the starting point were scored to establish a basal. **Figures 2.9** and **2.10** illustrate examples where two potential basals and two potential ceilings, respectively, were established during administration. The higher basal and lower ceiling are used for scoring purposes.

When computing subdomain raw scores, all items below the basal item are assumed to have scores of 2. If the interviewer has assigned item scores of 1 or 0 to any items below the basal item, those actual item scores are ignored, and the subdomain raw score is computed under the assumption that those items received scores of 2. (The information provided by the actual item scores may be useful for clinical purposes, however.) Similarly, all items above the ceiling item are assigned scores of 0 when computing subdomain raw scores. Once again, although the interviewer may have assigned one or more items above the ceiling a score of 1 or 2, a score of 0 will be used in computing the subdomain raw score. As with the items below the basal item, the actual scores may be useful for clinical purposes.

Figure 2.7 Applying the basal and ceiling rule on the Survey Interview Form for a child aged 8 years. A basal and ceiling were established without complication.

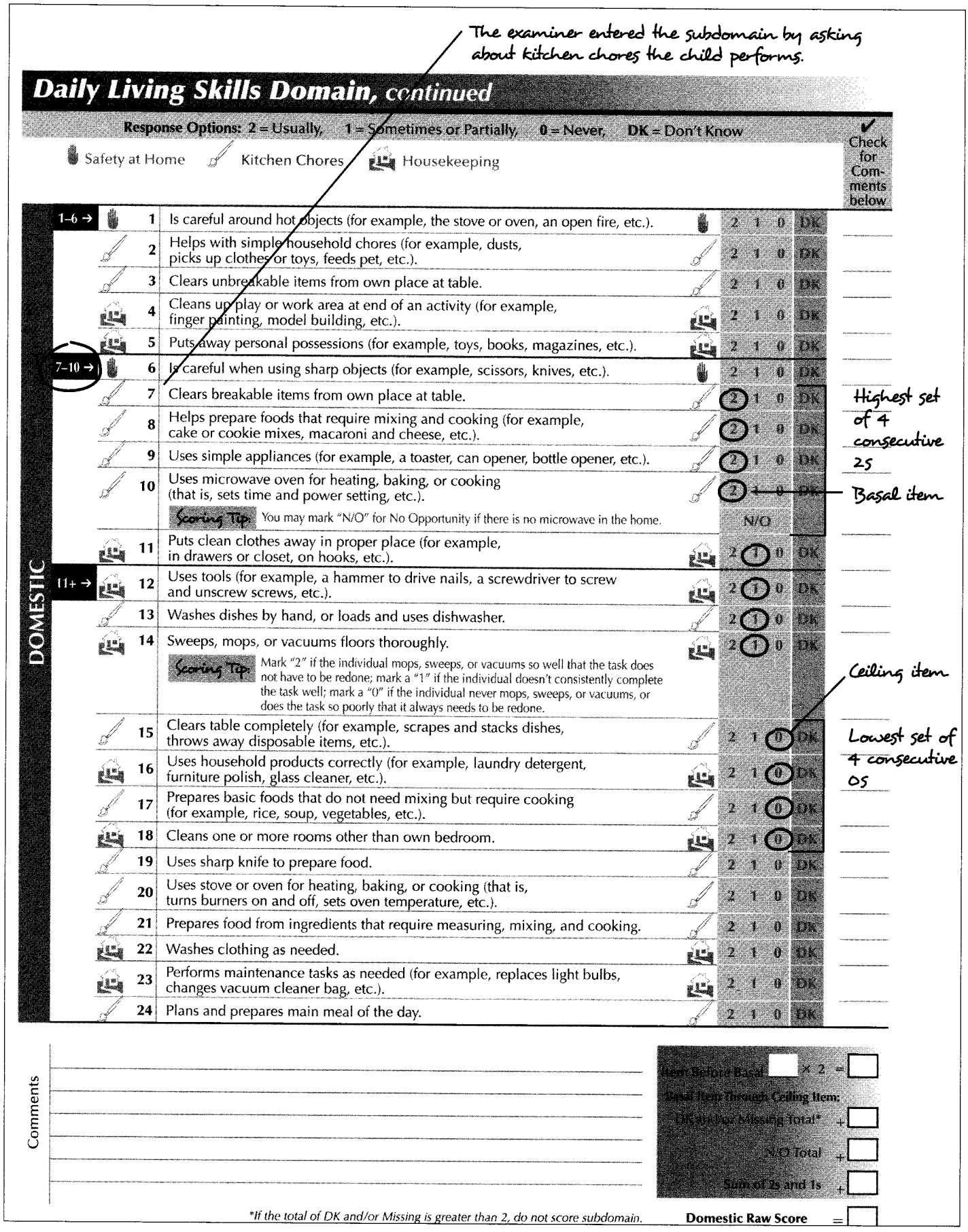
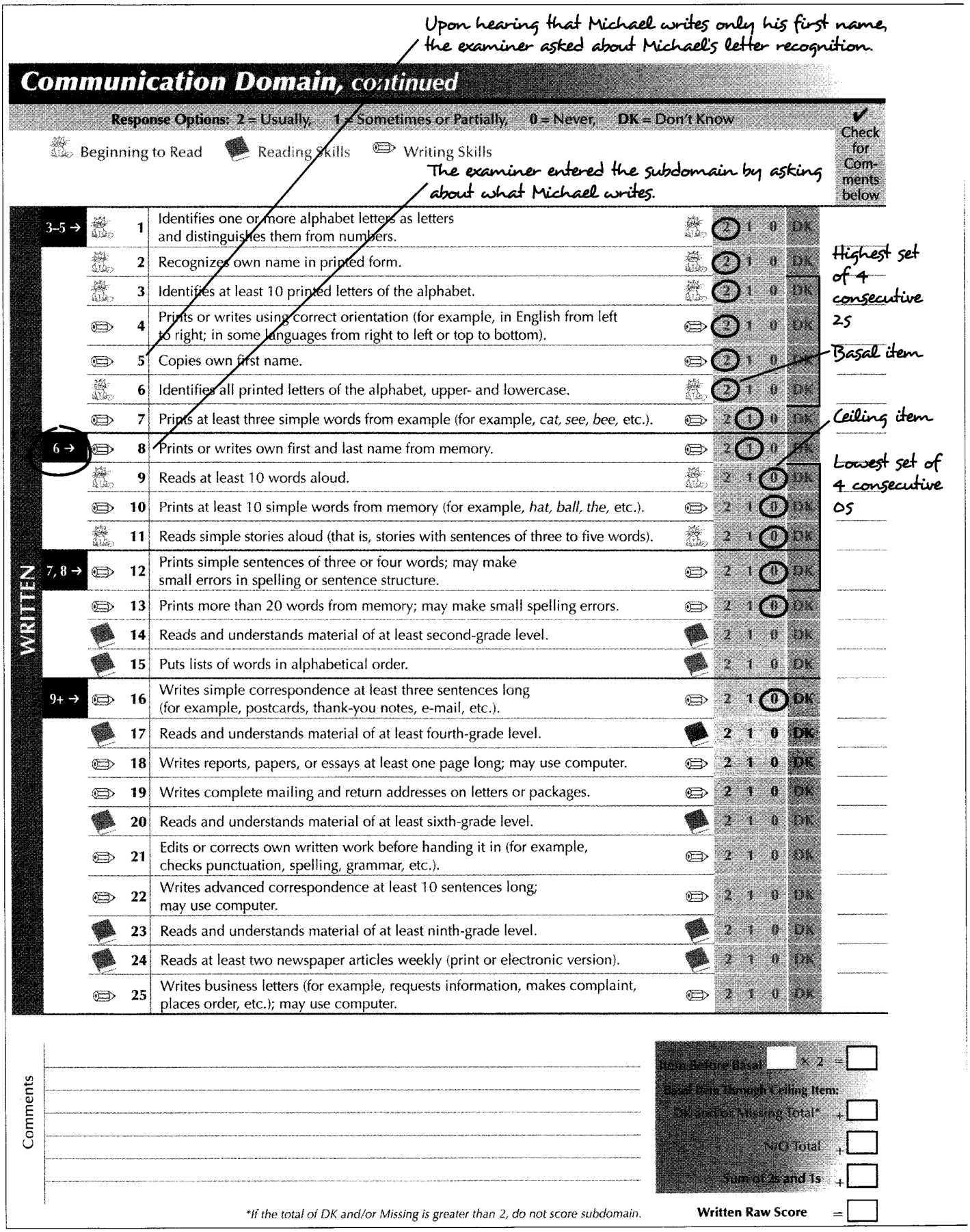

The examiner entered the subdomain by asking about kitchen chores the child performs.
Daily Living Skills Domain, continued
Response Options: 2 = Usually, 1 = Sometimes or Partially, 0 = Never, DK = Don't Know
Safety at Home
Kitchen Chores
Housekeeping
✓ Check for Comments below
DOMESTIC
1–6 →
7–10 →
11+ →
1 Is careful around hot objects (for example, the stove or oven, an open fire, etc.).
2 Helps with simple household chores (for example, dusts, picks up clothes or toys, feeds pet, etc.).
3 Clears unbreakable items from own place at table.
4 Cleans up play or work area at end of an activity (for example, finger painting, model building, etc.).
5 Puts away personal possessions (for example, toys, books, magazines, etc.).
6 Is careful when using sharp objects (for example, scissors, knives, etc.).
7 Clears breakable items from own place at table.
8 Helps prepare foods that require mixing and cooking (for example, cake or cookie mixes, macaroni and cheese, etc.).
9 Uses simple appliances (for example, a toaster, can opener, bottle opener, etc.).
10 Uses microwave oven for heating, baking, or cooking (that is, sets time and power setting, etc.).
Scoring Tip: You may mark "N/O" for No Opportunity if there is no microwave in the home.
11 Puts clean clothes away in proper place (for example, in drawers or closet, on hooks, etc.).
12 Uses tools (for example, a hammer to drive nails, a screwdriver to screw and unscrew screws, etc.).
13 Washes dishes by hand, or loads and uses dishwasher.
14 Sweeps, mops, or vacuums floors thoroughly.
Scoring Tip: Mark "2" if the individual mops, sweeps, or vacuums so well that the task does not have to be redone; mark a "1" if the individual doesn't consistently complete the task well; mark a "0" if the individual never mops, sweeps, or vacuums, or does the task so poorly that it always needs to be redone.
15 Clears table completely (for example, scrapes and stacks dishes, throws away disposable items, etc.).
16 Uses household products correctly (for example, laundry detergent, furniture polish, glass cleaner, etc.).
17 Prepares basic foods that do not need mixing but require cooking (for example, rice, soup, vegetables, etc.).
18 Cleans one or more rooms other than own bedroom.
19 Uses sharp knife to prepare food.
20 Uses stove or oven for heating, baking, or cooking (that is, turns burners on and off, sets oven temperature, etc.).
21 Prepares food from ingredients that require measuring, mixing, and cooking.
22 Washes clothing as needed.
23 Performs maintenance tasks as needed (for example, replaces light bulbs, changes vacuum cleaner bag, etc.).
24 Plans and prepares main meal of the day.
Highest set of 4 consecutive 2s
Basal item
Ceiling item
Lowest set of 4 consecutive 0s
Comments
Item Before Basal × 2 =
Basal Item Through Ceiling Item:
DK and/or Missing Total* +
N/O Total +
Sum of 2s and 1s +
*If the total of DK and/or Missing is greater than 2, do not score subdomain.
Domestic Raw Score =

Figure 2.8 Applying the basal and ceiling rule on the Survey interview Form for a child aged 6 years. The examiner dropped back to score items before the starting point to establish a basal.


Upon hearing that Michael writes only his first name, the examiner asked about Michael's letter recognition.
The examiner entered the subdomain by asking about what Michael writes.
Highest set of 4 consecutive 2s
Basal item
Ceiling item
Lowest set of 4 consecutive 0s

Communication Domain, continued

Response Options: 2 = Usually, 1 = Sometimes or Partially, 0 = Never, DK = Don't Know

Beginning to Read | Reading Skills | Writing Skills

✔ Check for Comments below

	3–5 →	1	Identifies one or more alphabet letters as letters and distinguishes them from numbers.		2 1 0	DK
		2	Recognizes own name in printed form.		2 1 0	DK
		3	Identifies at least 10 printed letters of the alphabet.		2 1 0	DK
		4	Prints or writes using correct orientation (for example, in English from left to right; in some languages from right to left or top to bottom).		2 1 0	DK
		5	Copies own first name.		2 1 0	DK
		6	Identifies all printed letters of the alphabet, upper- and lowercase.		2 1 0	DK
		7	Prints at least three simple words from example (for example, *cat, see, bee,* etc.).		2 1 0	DK
	6 →	8	Prints or writes own first and last name from memory.		2 1 0	DK
		9	Reads at least 10 words aloud.		2 1 0	DK
		10	Prints at least 10 simple words from memory (for example, *hat, ball, the,* etc.).		2 1 0	DK
		11	Reads simple stories aloud (that is, stories with sentences of three to five words).		2 1 0	DK
WRITTEN	7, 8 →	12	Prints simple sentences of three or four words; may make small errors in spelling or sentence structure.		2 1 0	DK
		13	Prints more than 20 words from memory; may make small spelling errors.		2 1 0	DK
		14	Reads and understands material of at least second-grade level.		2 1 0	DK
		15	Puts lists of words in alphabetical order.		2 1 0	DK
	9+ →	16	Writes simple correspondence at least three sentences long (for example, postcards, thank-you notes, e-mail, etc.).		2 1 0	DK
		17	Reads and understands material of at least fourth-grade level.		2 1 0	DK
		18	Writes reports, papers, or essays at least one page long; may use computer.		2 1 0	DK
		19	Writes complete mailing and return addresses on letters or packages.		2 1 0	DK
		20	Reads and understands material of at least sixth-grade level.		2 1 0	DK
		21	Edits or corrects own written work before handing it in (for example, checks punctuation, spelling, grammar, etc.).		2 1 0	DK
		22	Writes advanced correspondence at least 10 sentences long; may use computer.		2 1 0	DK
		23	Reads and understands material of at least ninth-grade level.		2 1 0	DK
		24	Reads at least two newspaper articles weekly (print or electronic version).		2 1 0	DK
		25	Writes business letters (for example, requests information, makes complaint, places order, etc.); may use computer.		2 1 0	DK

Comments

Item Before Basal: ☐ × 2 = ☐

Basal Item Through Ceiling Item:

DK and/or Missing Total* + ☐

N/O Total + ☐

Sum of 2s and 1s + ☐

*If the total of DK and/or Missing is greater than 2, do not score subdomain.

Written Raw Score = ☐

Figure 2.9 Applying the basal and ceiling rule on the Survey Interview Form for a child aged 8 years. The examiner established two basals; the higher basal is used.

Daily Living Skills Domain, continued

Response Options: 2 = Usually, 1 = Sometimes or Partially, 0 = Never, DK = Don't Know

Safety at Home | Kitchen Chores | Housekeeping

				✓ Check for Comments below
1–6 →	1	Is careful around hot objects (for example, the stove or oven, an open fire, etc.).	(2) 1 0 DK	
	2	Helps with simple household chores (for example, dusts, picks up clothes or toys, feeds pet, etc.).	(2) 1 0 DK	
	3	Clears unbreakable items from own place at table.	(2) 1 0 DK	Lower set of 4 consecutive 2s
	4	Cleans up play or work area at end of an activity (for example, finger painting, model building, etc.).	(2) 1 0 DK	
	5	Puts away personal possessions (for example, toys, books, magazines, etc.).	(2) 1 0 DK	
7–10 →	6	Is careful when using sharp objects (for example, scissors, knives, etc.).	(2) 1 0 DK	
	7	Clears breakable items from own place at table.	2 (1) 0 DK	
	8	Helps prepare foods that require mixing and cooking (for example, cake or cookie mixes, macaroni and cheese, etc.).	2 (1) 0 DK	
	9	Uses simple appliances (for example, a toaster, can opener, bottle opener, etc.).	(2) 1 0 DK	Highest set of 4 consecutive 2s
	10	Uses microwave oven for heating, baking, or cooking (that is, sets time and power setting, etc.).	(2) 1 0 DK	
		Scoring Tip You may mark "N/O" for No Opportunity if there is no microwave in the home.	N/O	
	11	Puts clean clothes away in proper place (for example, in drawers or closet, on hooks, etc.).	(2) 1 0 DK	Basal item
11+ →	12	Uses tools (for example, a hammer to drive nails, a screwdriver to screw and unscrew screws, etc.).	(2) 1 0 DK	
	13	Washes dishes by hand, or loads and uses dishwasher.	2 (1) 0 DK	
	14	Sweeps, mops, or vacuums floors thoroughly. **Scoring Tip** Mark "2" if the individual mops, sweeps, or vacuums so well that the task does not have to be redone; mark a "1" if the individual doesn't consistently complete the task well; mark a "0" if the individual never mops, sweeps, or vacuums, or does the task so poorly that it always needs to be redone.	2 (1) 0 DK	
	15	Clears table completely (for example, scrapes and stacks dishes, throws away disposable items, etc.).	2 (1) 0 DK	
	16	Uses household products correctly (for example, laundry detergent, furniture polish, glass cleaner, etc.).	2 (1) 0 DK	
	17	Prepares basic foods that do not need mixing but require cooking (for example, rice, soup, vegetables, etc.).	2 1 (0) DK	Ceiling item
	18	Cleans one or more rooms other than own bedroom.	2 (1) 0 DK	
	19	Uses sharp knife to prepare food.	2 1 (0) DK	Lowest set of 4 consecutive 0s
	20	Uses stove or oven for heating, baking, or cooking (that is, turns burners on and off, sets oven temperature, etc.).	2 1 (0) DK	
	21	Prepares food from ingredients that require measuring, mixing, and cooking.	2 1 (0) DK	
	22	Washes clothing as needed.	2 1 (0) DK	
	23	Performs maintenance tasks as needed (for example, replaces light bulbs, changes vacuum cleaner bag, etc.).	2 1 0 DK	
	24	Plans and prepares main meal of the day.	2 1 0 DK	

DOMESTIC

Comments

Item Before Basal ____ × 2 = ____

Basal Item through Ceiling Item:

DK and/or Missing Total* + ____

N/O Total + ____

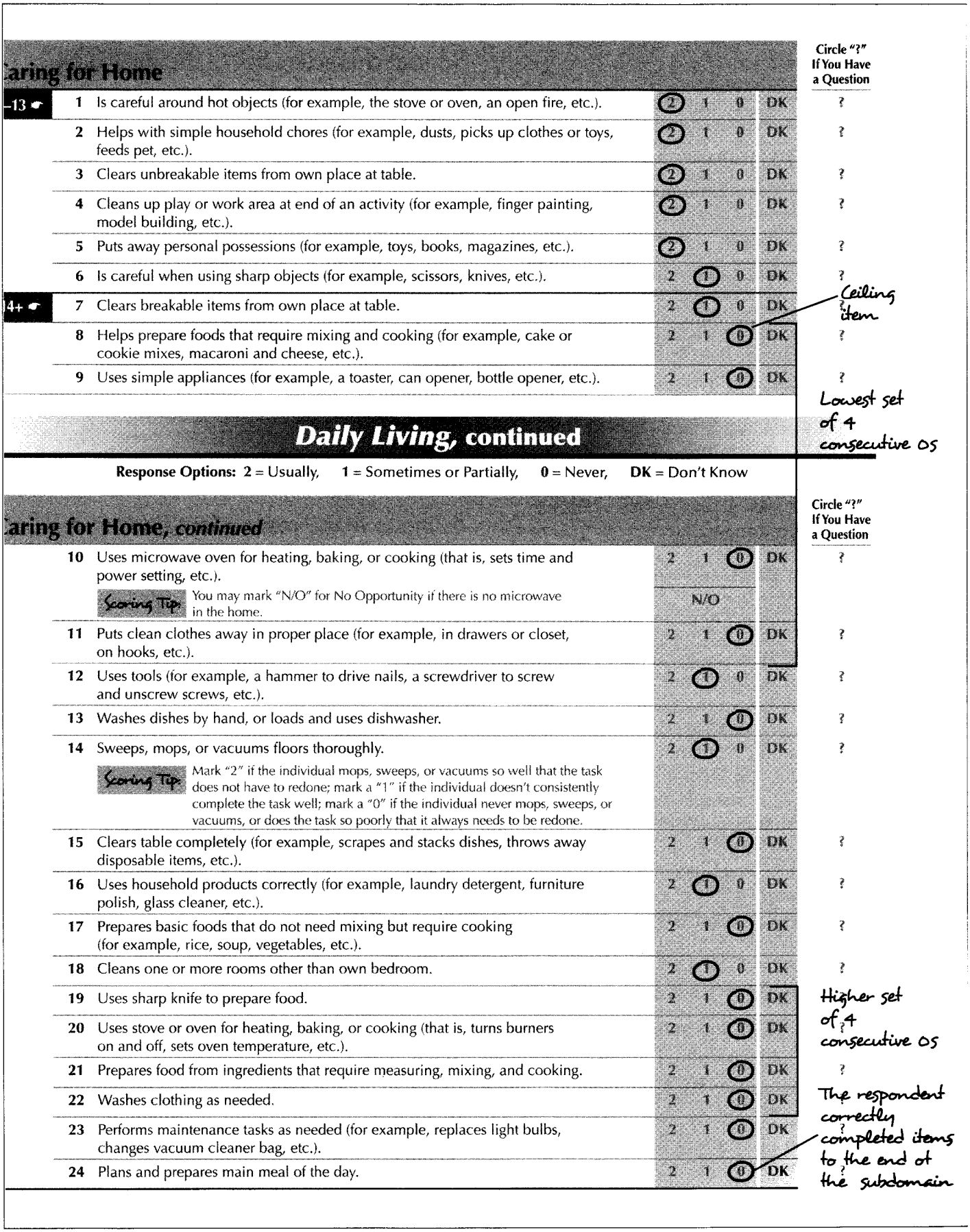
Sum of 2s and 1s + ____

*If the total of DK and/or Missing is greater than 2, do not score subdomain.

Domestic Raw Score = ____ SUM

12

Figure 2.10 Applying the ceiling rule on the Parent/Caregiver Rating Form. Two ceilings were established; the lower ceiling is used.



Caring for Home

						Circle "?" If You Have a Question
1–13 ☛	1	Is careful around hot objects (for example, the stove or oven, an open fire, etc.).	(2)	1	0	DK	?
	2	Helps with simple household chores (for example, dusts, picks up clothes or toys, feeds pet, etc.).	(2)	1	0	DK	?
	3	Clears unbreakable items from own place at table.	(2)	1	0	DK	?
	4	Cleans up play or work area at end of an activity (for example, finger painting, model building, etc.).	(2)	1	0	DK	?
	5	Puts away personal possessions (for example, toys, books, magazines, etc.).	(2)	1	0	DK	?
	6	Is careful when using sharp objects (for example, scissors, knives, etc.).	2	(1)	0	DK	?
4+ ☛	7	Clears breakable items from own place at table.	2	(1)	0	DK	?
	8	Helps prepare foods that require mixing and cooking (for example, cake or cookie mixes, macaroni and cheese, etc.).	2	1	(0)	DK	?
	9	Uses simple appliances (for example, a toaster, can opener, bottle opener, etc.).	2	1	(0)	DK	?

Ceiling item

Lowest set of 4 consecutive 0s

Daily Living, continued

Response Options: **2** = Usually, **1** = Sometimes or Partially, **0** = Never, **DK** = Don't Know

Caring for Home, *continued*

						Circle "?" If You Have a Question
	10	Uses microwave oven for heating, baking, or cooking (that is, sets time and power setting, etc.).	2	1	(0)	DK	?
		Scoring Tip: You may mark "N/O" for No Opportunity if there is no microwave in the home.		N/O			
	11	Puts clean clothes away in proper place (for example, in drawers or closet, on hooks, etc.).	2	1	(0)	DK	?
	12	Uses tools (for example, a hammer to drive nails, a screwdriver to screw and unscrew screws, etc.).	2	(1)	0	DK	?
	13	Washes dishes by hand, or loads and uses dishwasher.	2	1	(0)	DK	?
	14	Sweeps, mops, or vacuums floors thoroughly.	2	(1)	0	DK	?
		Scoring Tip: Mark "2" if the individual mops, sweeps, or vacuums so well that the task does not have to redone; mark a "1" if the individual doesn't consistently complete the task well; mark a "0" if the individual never mops, sweeps, or vacuums, or does the task so poorly that it always needs to be redone.					
	15	Clears table completely (for example, scrapes and stacks dishes, throws away disposable items, etc.).	2	1	(0)	DK	?
	16	Uses household products correctly (for example, laundry detergent, furniture polish, glass cleaner, etc.).	2	(1)	0	DK	?
	17	Prepares basic foods that do not need mixing but require cooking (for example, rice, soup, vegetables, etc.).	2	1	(0)	DK	?
	18	Cleans one or more rooms other than own bedroom.	2	(1)	0	DK	?
	19	Uses sharp knife to prepare food.	2	1	(0)	DK	?
	20	Uses stove or oven for heating, baking, or cooking (that is, turns burners on and off, sets oven temperature, etc.).	2	1	(0)	DK	?
	21	Prepares food from ingredients that require measuring, mixing, and cooking.	2	1	(0)	DK	?
	22	Washes clothing as needed.	2	1	(0)	DK	?
	23	Performs maintenance tasks as needed (for example, replaces light bulbs, changes vacuum cleaner bag, etc.).	2	1	(0)	DK	?
	24	Plans and prepares main meal of the day.	2	1	(0)	DK	?

Higher set of 4 consecutive 0s

The respondent correctly completed items to the end of the subdomain

Completing the Interview

Before ending the interview, the interviewer must:

1. Determine that a basal and ceiling have been established for each subdomain
2. Determine that all items between the basal item and the ceiling item have been scored
3. Obtain any missing information from the respondent
4. Ask for the respondent's estimate of the individual's functioning, and record this information on the About the Interview page
5. Thank the respondent for participating in the interview

The interviewer should always attempt to complete the administration of the Survey Interview Form in a single session. Nonetheless, the interviewer must be flexible and agreeable to scheduling a second session when required, so as not to sacrifice accuracy for time.

Recording Interview Observations

On the About the Interview page of the record booklet, write the following information:

Respondent's estimate of the individual's functioning

To obtain this information from the respondent, the interviewer might ask, "Based on our discussion of Sue's activities, at what age level would you say she is functioning?" or "What age best describes John's abilities?" This query, which was developed for the Vineland SMS (Doll, 1935, 1965), provides the interviewer with information about the respondent's expectations, realistic or unrealistic, for the individual. In addition, it requires the respondent to evaluate the activities discussed in the interview in comparison with activities performed by others of the same age. The respondent's answer can later be compared with the individual's derived scores and discussed with the respondent when the Vineland–II results are reviewed.

Language used in the interview

Record *English*, or another language if the Survey Interview Form was administered by a bilingual interviewer.

Special characteristics of the individual

List any special physical, sensory, mental, or emotional abilities or disabilities; special educational classifications; cultural factors; socioeconomic factors; and other factors affecting the individual's home environment or the environment at the facility where the individual lives.

Estimate of rapport established with the respondent

Did the respondent appear at ease during the interview? Did the respondent appear resentful about the questions and probes? Did the respondent appear eager to see the interview end? Did the respondent give detailed descriptions of the individual's activities or respond in brief sentences? Did the respondent ask questions about the individual such as "Is that normal?" Did the respondent spontaneously supply additional information that was not requested as part of the interview?

Estimate of the respondent's accuracy

Indicate whether the respondent's descriptions of the individual's activities seemed exaggerated or whether the respondent seemed to guess a great deal. If you know the individual being assessed, indicate whether you agree with the respondent's descriptions.

General observations

Is the individual performing all activities of which he or she is capable? Does the caregiver restrict many activities or are no restrictions placed on the individual's activities while other individuals the same age are restricted? Does the individual appear more or less mature than others of the same age? If the individual is of school age, did the respondent express any concerns about school performance or behavior? What additional information not covered by the Vineland–II items was supplied during the interview, either spontaneously or through probing? What characteristics of the individual are seen by you or the respondent as strengths? As weaknesses?

Figure 2.11 shows a completed About the Interview page.

Figure 2.11 About the Interview Page

About the Interview:

Respondent's Estimate of the Individual's Functioning: A typical 5 year old

Language Used in the Interview: English

Special Characteristics of the Individual: Only sibling (brother) born 6 months ago

Estimate of the Rapport Established with the Respondent: Good. Mother appeared comfortable and eager to talk about David's activities.

Estimate of the Respondent's Accuracy: Responses seemed honest and realistic.

General Observations: According to David's mother, David is a typical 5 year old who loves to play with his friends. She is somewhat worried about his negative reaction to his younger brother, including frequent excuses to stay home from school since his brother was born. However, she feels that David will outgrow this. She is also concerned about his lack of interest in anything but play. Most of the time, he'd rather play than do schoolwork or listen to stories. David's mother sees his "charming personality" as a strength and his lack of seriousness as a weakness.

Administration in Languages Other than English

Spanish

A record booklet containing a Spanish translation of the Survey Interview Form items was developed to facilitate administration for the growing number of Hispanic individuals in the United States. Though many Hispanic individuals are bilingual, their parents or caregivers, who are the respondents, may primarily speak Spanish. With the use of the Spanish record booklet, the interview can proceed without the interviewer having to translate item topics during discussion. The Spanish record booklet was used in the national standardization whenever the respondent's primary language was Spanish. It is important, however, that the interviewer be fluent in both English and Spanish, since the scoring criteria and manuals are available only in English.

The interview in Spanish is to be conducted in the same manner as it would be in English, using the same scoring criteria and the semistructured interview method. Even though the items are translated into Spanish, they are not to be read to the respondent. It should be noted that when the scoring criterion for an item calls for a specific word to be used by the individual being assessed, the word may be in either English or Spanish. Thus, for the item "Says 'please' when asking for something," the use of either "por favor" or "please" is acceptable.

Other Languages

Translations of the Survey Interview Form items into languages other than English and Spanish are not available at this time. The Survey Interview Form may be administered in any language by a bilingual interviewer, however, because the basis of the Vineland–II semistructured interview is the use of questions and probes by the interviewer, in the interviewer's own words. The authors have found that the Vineland ABS has been used successfully with respondents speaking a number of different languages.

Parent/Caregiver Rating Form Administration

General administration guidelines applicable to both Survey forms were presented at the beginning of this chapter. This section gives information that is specifically relevant to using the Parent/Caregiver Rating Form.

Test Materials

The materials required for administering the Parent/Caregiver Rating Form include this manual, which contains scoring criteria for the items; the Parent/Caregiver Rating Form record booklet; and a pencil. The record booklet consists of 28 pages. The cover has space for recording information about the individual and the respondent. Pages 5 through 24 contain the 433 items for the four adaptive behavior domains, or scales, and the optional Maladaptive Behavior Domain. Starting points by age are indicated to the left of the items. Boxes for item scores are located to the right of the items. A question mark is provided to the right of the item scores to allow the parent or caregiver to identify items that he or she has a question about or does not understand. Pages 25 through 27 comprise the detachable Vineland–II Score Report, which includes the Score Summary, Score Profile, and Pairwise Comparisons. Page 28 provides space for computing subdomain raw scores. Detach the Score Report before giving the record booklet to the parent or caregiver to complete.

Because terms such as *domain* and *subdomain* are not likely to be familiar to many parents and caregivers, they have been replaced with terms readily understood by parents and caregivers. The names of the domains and subdomains are listed in Table 2.1

Testing Environment

Ideally, the Parent/Caregiver Rating Form should be completed by the respondent in a controlled setting such as a clinic, school, or agency office. The room should be quiet and free of distractions, with adequate space, a comfortable temperature, and a comfortable chair and writing surface. Although both parents may be present while the Parent/Caregiver Rating Form is being completed, they should be aware that the parent who best knows the individual's everyday activities and behaviors should complete the form. Discussion by the parents about particular items is acceptable. The individual being assessed should not be present.

If circumstances require the respondent to complete the rating form off-site, provide complete instructions and safeguards to ensure that the off-site completion is valid. Give contact information in case questions arise, and tell the respondent when and where to return the form.

Selecting the Respondent

In addition to selecting the respondent who knows the individual best (as discussed earlier in this chapter), users of the Parent/Caregiver Rating Form must consider additional factors. The respondent must not only have sufficient knowledge of the individual's behaviors and daily activities, but also must possess sufficiently high reading skill to be able to read and understand the directions for completing the form and the items themselves. Examiners must also assess whether a given respondent is likely to provide honest and objective ratings, or whether he or she seems likely to bias ratings to fit his or her own interests or intents. If either poor reading skill or response bias is suspected, then the Survey Interview Form is likely to give more valid results.

Preparing for Administration

Completing the Front Cover of the Record Booklet

Before giving the respondent the Parent/Caregiver Rating Form to complete, fill in the biographical information about the individual and the respondent. Record the test date and the individual's birth date in years, months, and days, and compute his or her chronological age by subtracting the birth date from the interview date. (Do not round age upward.) If the respondent is going to complete the form off-site, instruct him or her to record on the cover the date he or she completes it. Verify the accuracy of the individual's birth date and the date the form was completed.

Determining the Starting Points

The examiner should mark the starting point for each subdomain before giving the Parent/Caregiver Rating Form to the respondent. Circling or highlighting the starting point helps avoid confusion for the respondent. For individuals without disabilities, the starting point for each subdomain in the Parent/Caregiver Rating Form is usually based on chronological age. Do not round up chronological age when determining the starting point. For example, for a child between the ages of 5:0:0 and 5:11:30, use the starting point for age 5; a child aged 5:11:30 would *not* be rounded to 6. Starting points are indicated on the record booklet by labeled arrows pointing to the age-appropriate starting item.

It is important to note that there are fewer starting points on the Parent/Caregiver Rating Form than on the Survey Interview Form, and generally they are set much lower. This difference in starting points between the forms is intended to ensure that a basal is established in each subdomain without undue follow-up required by the examiner. However, setting the starting points lower also means that respondents are likely to encounter more items describing behaviors that the individual has outgrown. Examiners must be sure to alert respondents to this and emphasize that the correct score for such items is 2, even though the individual no longer performs the behavior.

In some cases it may be necessary to use a starting point lower than the individual's chronological age because of suspected developmental delays or deficits in one or more domains. Use the lower starting point for all subdomains administered. Interviewers should select starting points based on clinical judgment and experience. For individuals with mental retardation or other disabilities, the starting point usually is based on a best estimate of either mental age or social age obtained from the results of a previously administered standardized test.

Administering the Parent/Caregiver Rating Form

Establishing Rapport

Establishing a relationship that encourages the respondent to provide accurate, unbiased information about the individual's typical level of functioning is at least as important for obtaining valid results on the Parent/Caregiver Rating Form as it is on the Survey Interview Form. The examiner should be thoroughly familiar with methods of establishing rapport, as discussed at the beginning of this chapter.

Explaining the Instructions

Carefully review the form with the respondent to ensure that he or she understands how to complete it. Include the following points in your instructions to the respondent:

- Please read the directions and mark a rating for every item in each section after the start point circled or highlighted.
- The items on this form cover a wide age range. [Individual's name] is not expected to have all the skills described by all the items.
- Mark the rating that best describes how often the individual performs the behavior when it is needed, not whether the individual can perform the behavior.
- Mark a 2 to indicate the individual usually performs the behavior without help or reminders; mark a 1 if the individual sometimes performs the behavior without help or reminders or performs part of the

behavior without help or reminders; mark 0 if the individual never or very seldom performs the behavior or never performs it without help or reminders.

- If the individual does not perform a behavior because he or she has outgrown it, mark a 2. For example, if the individual walks now instead of crawling, mark a 2 for items about crawling.
- If you have a question about an item, mark a 2, 1, or 0, but then circle the question mark to the right of the item scores. After you have finished the form, we can talk about your questions.
- Please let me know if you have any questions or need any help while you are completing the form.

Point out the sections (subdomains) to be completed and indicate the location in each subdomain where the respondent should begin. As with the Survey Interview Form, the Domestic, Community, and Coping Subdomains should not be completed for individuals younger than 1 year of age; the Written Subdomain should not be completed for individuals younger than 3 years of age. Cross out these sections if they should not be administered, and also cross out the Motor Skills Domain and Maladaptive Behavior Domain sections if you have decided not to administer them.

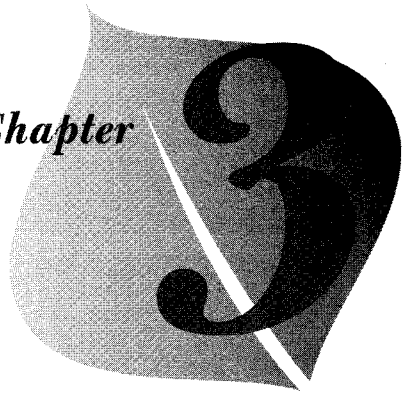
Ask the respondent to read the directions on pages 3 and 4 of the record booklet. Provide additional instruction or assistance if necessary. If the respondent will be completing the rating off-site, encourage him or her to call the clinician with any questions. Encourage him or her to complete the rating in one sitting.

Reviewing the Completed Rating Form

After the respondent has completed the rating scale, you must:

1. Confirm that the front cover has been filled in accurately, including checking the computation of the age of the individual (if the respondent completed the cover).
2. Confirm that the respondent started with the correct item in each subdomain and that a basal has been established. As with the Survey Interview Form, a basal on the Parent/Caregiver Rating Form is established when the individual usually or habitually performs all the activities described in four consecutive items in a subdomain (that is, the respondent marks a score of 2 on four consecutive items).
3. Confirm that all items above the basal have been completed. As with the Survey Interview Form, a ceiling on the Parent/Caregiver Rating Form is established when four consecutive items are scored 0; however, you apply this rule when computing subdomain raw scores. The respondent completes every item in each subdomain after the start point you have circled or highlighted.
4. Follow up with the respondent on any items marked *Don't Know* or uncertain.
5. Review the answers and identify any inconsistencies. Within a subdomain, items are arranged in order of ascending difficulty. If a later item was mastered and received a 2, but an earlier closely-related item measuring the same content area received a lower score, question the respondent to resolve whether the earlier item should be rescored a 2. For example, if the respondent assigned a score of 2 to Expressive Subdomain Item 26 (the individual says at least 100 recognizable words) but scored a 1 on Item 20 (the individual says at least 50 recognizable words), discuss this with the respondent to determine which of the item scores should be changed.
6. Follow up and question the respondent to clarify responses when there is a discrepancy, where the respondent circled the question mark to the right of the item, and to complete any omitted items.

Computing Raw Scores and Obtaining Derived Scores



The first part of this chapter explains how to compute and record subdomain raw scores when using either the Survey Interview Form or the Parent/Caregiver Rating Form. The second part shows how to convert raw scores to derived scores for the subdomains, domains, and Adaptive Behavior Composite, and how to use the Score Report included in the record booklets to organize the test results and conduct the interpretive steps.

Computing Subdomain Raw Scores

This section describes the necessary steps to obtain the raw score for each subdomain. These steps assume that the administration rules described in Chapter 2 were followed. All rules *must* be followed precisely because the norms are based upon the application of these rules. Any deviation may result in invalid scores. The steps described below are illustrated in **Figure 3.1** (Survey Interview Form) and **Figure 3.2** (Parent/Caregiver Rating Form).

1. **Identify the basal item and ceiling item.**
   To compute a raw score for a subdomain, you must first identify the basal item and the ceiling item of that subdomain. The basal item is the *highest item* in the highest set of four consecutive items scored 2. For example, if items 8 through 11 constitute the highest set of four consecutive items scored 2, then the basal item is item 11. Conversely, the ceiling item is the *lowest item* in the lowest set of four consecutive items scored 0. If a basal item was not established, then the first item in the subdomain becomes the basal item. If a ceiling item was not established, then the last item becomes the ceiling item. On the record form, mark a *b* next to the basal item and a *c* next to the ceiling item.

2. **Compute the number of points below the basal.**
   Next, locate the score box for the subdomain. On the Survey Interview Form, the score box is located at the end of the subdomain. On the Parent/Caregiver Rating Form, the score boxes for all subdomains are located on the front page of the Score Report. (Note when the Score Report is detached from the record booklet the score boxes are on the front page; before the Score Report is detached, the page with the score boxes is the back page.) In the appropriate score box, record in the space labeled "Item Before Basal" the number of the item *just before* the item marked *b*. (If the basal item is item 1, write 0 in the space.) Then multiply this number by two and record the result in the box on the same line.

3. **Compute the number of DK and/or missing items.**
   From the item marked *b* through the item marked *c*, count the number of items that are either scored DK or are not scored. Record this total in the box labeled "DK and/or Missing Total." For example, if one item is marked DK and one item is not scored, the total is 2. If the total for a subdomain is *greater than* 2, then that subdomain cannot be scored. (When a subdomain cannot be scored because the total of items scored DK or not scored is greater than 2, you must follow up with the respondent to obtain the information needed to rescore DK items or score those not scored, or prorate the subdomain. Prorating is discussed later in this chapter.)

4. **Compute the number of N/Os.**
   From the item marked *b* through the item marked *c*, count the number of items scored N/O and record this total in the box labeled "N/O Total."

5. **Compute the sum of 2s and 1s.**
   From the item marked *b* through the item marked *c*, compute the sum of scores on items scored 2 or 1, and record the total in the box labeled "Sum of 2s and 1s."

6. **Calculate the subdomain raw score.**
   Sum the numbers in the four boxes and record the total in the space for the subdomain raw score.

Figure 3.1 Subdomain raw scores computed for the Written Subdomain on the Survey Interview Form for a child aged 3 years. No basal was established, so Item 1 becomes the basal item.

Communication Domain, continued

Response Options: 2 = Usually, 1 = Sometimes or Partially, 0 = Never, DK = Don't Know

Beginning to Read | Reading Skills | Writing Skills

Start item / Basal item

					✓ Check for Comments below
3–5 →	1	Identifies one or more alphabet letters as letters and distinguishes them from numbers.	(2) 1 0	DK	b
	2	Recognizes own name in printed form.	(2) 1 0	DK	
	3	Identifies at least 10 printed letters of the alphabet.	(2) 1 0	DK	
	4	Prints or writes using correct orientation (for example, in English from left to right; in some languages from right to left or top to bottom).	2 (1) 0	DK	
	5	Copies own first name.	2 (1) 0	DK	Ceiling item
	6	Identifies all printed letters of the alphabet, upper- and lowercase.	2 (1) 0	DK	
	7	Prints at least three simple words from example (for example, *cat, see, bee,* etc.).	2 1 (0)	DK	c
6 →	8	Prints or writes own first and last name from memory.	2 1 (0)	DK	
	9	Reads at least 10 words aloud.	2 1 (0)	DK	4 consecutive
	10	Prints at least 10 simple words from memory (for example, *hat, ball, the,* etc.).	2 1 (0)	DK	0s
	11	Reads simple stories aloud (that is, stories with sentences of three to five words).	2 1 0	DK	
7, 8 →	12	Prints simple sentences of three or four words; may make small errors in spelling or sentence structure.	2 1 0	DK	
	13	Prints more than 20 words from memory; may make small spelling errors.	2 1 0	DK	
	14	Reads and understands material of at least second-grade level.	2 1 0	DK	
	15	Puts lists of words in alphabetical order.	2 1 0	DK	
9+ →	16	Writes simple correspondence at least three sentences long (for example, postcards, thank-you notes, e-mail, etc.).	2 1 0	DK	
	17	Reads and understands material of at least fourth-grade level.	2 1 0	DK	
	18	Writes reports, papers, or essays at least one page long; may use computer.	2 1 0	DK	
	19	Writes complete mailing and return addresses on letters or packages.	2 1 0	DK	
	20	Reads and understands material of at least sixth-grade level.	2 1 0	DK	
	21	Edits or corrects own written work before handing it in (for example, checks punctuation, spelling, grammar, etc.).	2 1 0	DK	
	22	Writes advanced correspondence at least 10 sentences long; may use computer.	2 1 0	DK	
	23	Reads and understands material of at least ninth-grade level.	2 1 0	DK	
	24	Reads at least two newspaper articles weekly (print or electronic version).	2 1 0	DK	
	25	Writes business letters (for example, requests information, makes complaint, places order, etc.); may use computer.	2 1 0	DK	

WRITTEN

Comments

Item Before Basal	0 × 2 = 0
Basal Item through Ceiling Item:	
DK and/or Missing Total*	+ —
0/0 Total	+ —
Sum of 2s and 1s	+ 9
Written Raw Score	= 9 SUM

**If the total of DK and/or Missing is greater than 2, do not score subdomain.*

Figure 3.2 Subdomain raw scores computed for the Written Subdomain on the Parent/Caregiver Rating Form for a child aged 14 years. No ceiling was established, so the last item in the subdomain becomes the ceiling item.

Communication, continued

Response Options: **2** = Usually, **1** = Sometimes or Partially, **0** = Never, **DK** = Don't Know

		Reading and Writing					Circle "?" If You Have a Question
3–13 ☛	1	Identifies one or more alphabet letters as letters and distinguishes them from numbers.	2	1	0	DK	?
	2	Recognizes own name in printed form.	2	1	0	DK	?
	3	Identifies at least 10 printed letters of the alphabet.	2	1	0	DK	?
	4	Prints or writes using correct orientation (for example, in English from left to right; in some languages from right to left or top to bottom).	2	1	0	DK	?
	5	Copies own first name.	2	1	0	DK	?
	6	Identifies all printed letters of the alphabet, upper- and lowercase.	2	1	0	DK	?
	7	Prints at least three simple words from example (for example, *cat, see, bee,* etc.).	2	1	0	DK	?
	8	Prints or writes own first and last name from memory.	2	1	0	DK	?
	9	Reads at least 10 words aloud.	2	1	0	DK	?
	10	Prints at least 10 simple words from memory (for example, *hat, ball, the,* etc.).	2	1	0	DK	?
	11	Reads simple stories aloud (that is, stories with sentences of three to five words).	2	1	0	DK	?
	12	Prints simple sentences of three or four words; may make small errors in spelling or sentence structure.	2	1	0	DK	?
	13	Prints more than 20 words from memory; may make small spelling errors.	2	1	0	DK	?
14+ ☛	14	Reads and understands material of at least second-grade level.	(2)	1	0	DK	?
	15	Puts lists of words in alphabetical order.	(2)	1	0	DK	?
	16	Writes simple correspondence at least three sentences long (for example, postcards, thank-you notes, e-mail, etc.).	(2)	1	0	DK	?
	17	Reads and understands material of at least fourth-grade level.	(2)	1	0	DK	?
	18	Writes reports, papers, or essays at least one page long; may use computer.	(2)	1	0	DK	?
	19	Writes complete mailing and return addresses on letters or packages.	(2)	1	0	DK	25 ?
	20	Reads and understands material of at least sixth-grade level.	(2)	1	0	DK	? b
	21	Edits or corrects own written work before handing it in (for example, checks punctuation, spelling, grammar, etc.).	2	⊗	0	(DK)	?
	22	Writes advanced correspondence at least 10 sentences long; may use computer.	2	(1)	0	DK	?
	23	Reads and understands material of at least ninth-grade level.	(2)	1	0	DK	?
	24	Reads at least two newspaper articles weekly (print or electronic version).	2	(1)	0	DK	?
	25	Writes business letters (for example, requests information, makes complaint, places order, etc.); may use computer.	2	(1)	0	DK	? c

Highest set of 4 consecutive ?

Basal item

Ceiling item

Computing Raw Scores for the Maladaptive Behavior Index

This section describes the steps to compute the raw score for the three subscales of the *optional* Maladaptive Behavior Index when it is administered for an individual aged 3 or older. (On the Parent/Caregiver Rating Form, the Internalizing, Externalizing, and Other subscales are labeled Section A, Section B, and Section C, respectively.) A raw score for a maladaptive subscale can be computed *only* if every item within that subscale has a score of 2, 1, or 0. The steps are illustrated in **Figures 3.3** (Survey Interview Form) and **Figure 3.4** (Parent/Caregiver Rating Form).

1. **Compute the Internalizing raw score.** Compute the sum of scores on items scored 2 or 1. For the Survey Interview Form, record this total on the record form in the box labeled "Internalizing Raw Score." For the Parent/Caregiver Rating Form, record the total in the section labeled "Problem Behaviors," in the box labeled "Section A Sum of 2s and 1s."

Figure 3.3 Internalizing, Externalizing, Other, and Maladaptive Behavior Index raw scores computed on the Survey Interview Form for a child aged 5 years

Maladaptive Behavior Index

Response Options: 2 = Usually, 1 = Sometimes, 0 = Never

			✔ Check for Comments below
INTERNALIZING	3+ → 1	Is overly dependent (that is, clings to caregiver, teacher, brother, or sister).	0 1 2
	2	Avoids others and prefers to be alone.	0 1 2
	3	Has eating difficulties (for example, eats too fast or too slowly, hoards food, overeats, refuses to eat, etc.).	0 1 2
	4	Has sleep difficulties (for example, sleepwalks, has frequent nightmares, sleeps significantly more or less than typical for his or her age.	0 1 2
	5	Refuses to go to school or work because of fear, feelings of rejection or isolation, etc.	0 1 2
	6	Is overly anxious or nervous.	0 1 2
	7	Cries or laughs too easily.	0 1 2
	8	Has poor eye contact (that is, does not look at or face others when speaking or spoken to).	0 1 2
	9	Is sad for no clear reason.	0 1 2
	10	Avoids social interaction.	0 1 2
	11	Lacks energy or interest in life.	0 1 2

Comments

Sum of 2s and 1s: 0

Internalizing Raw Score = 0

EXTERNALIZING	3+ → 1	Is impulsive (that is, acts without thinking).	0 1 2
	2	Has temper tantrums.	0 1 2
	3	Intentionally disobeys and defies those in authority.	0 1 2
	4	Taunts, teases, or bullies.	0 1 2
	5	Is inconsiderate or insensitive to others.	0 1 2
	6	Lies, cheats, or steals.	0 1 2
	7	Is physically aggressive (for example, hits, kicks, bites, etc.).	0 1 2
	8	Is stubborn or sullen.	0 1 2
	9	Says embarrassing things or asks embarrassing questions in public (for example, "You're fat," or "What's that big red thing on your nose?").	0 1 2
	10	Behaves inappropriately at the urging of others.	0 1 2

mments

Sum of 2s and 1s: 2

Externalizing Raw Score = 2

2. **Compute the Externalizing raw score.**
Compute the sum of scores on items scored 2 or 1. For the Survey Interview Form, record this total in the box labeled "Externalizing Raw Score." For the Parent/Caregiver Rating Form, record the total in the box labeled "Section B Sum of 2s and 1s."

3. **Compute the Other raw score.**
Compute the sum of scores on items scored 2 or 1. For the Survey Interview Form, record this total in the box labeled "Other Raw Score." For the Parent/Caregiver Rating Form, record the total in the box labeled "Section C Sum of 2s and 1s."

4. **Calculate the Maladaptive Behavior Index raw score.**
For the Survey Interview Form, sum the Internalizing, Externalizing, and Other raw scores and record the total in the box labeled "Maladaptive Behavior Index Raw Score," located at the end of the Other section. For the Parent/Caregiver Rating Form, enter the total in the box labeled "Problem Behaviors Raw Score."

Figure 3.3, *continued*

Maladaptive Behavior Index, continued

Response Options: 2 = Usually, 1 = Sometimes, 0 = Never

				✔ Check for Comments below
OTHER	3+ → 1	Sucks thumb or fingers.	0 (1) 2	
	2	Wets bed or must wear diapers at night.	(0) 1 2	
	3	Acts overly familiar with strangers (for example, holds hands, hugs, sits on lap, etc.).	(0) 1 2	
	4	Bites fingernails.	0 (1) 2	
	5	Has tics (that is, involuntary blinking, twitching, head shaking, etc.).	(0) 1 2	
	6	Grinds teeth during the day or night.	0 (1) 2	
	7	Has a hard time paying attention.	0 (1) 2	
	8	Is more active or restless than others of same age.	0 (1) 2	
	9	Uses school or work property (for example, telephone, Internet access, office supplies, etc.) for unapproved personal purposes.	(0) 1 2	
	10	Swears.	(0) 1 2	
	11	Runs away (that is, is missing for 24 hours or longer).	(0) 1 2	
	12	Is truant from school or work.	(0) 1 2	
	13	Ignores or doesn't pay attention to others around him or her.	(0) 1 2	
	14	Uses money or gifts to "buy" affection.	(0) 1 2	
	15	Uses alcohol or illegal drugs during the school or work day.	(0) 1 2	

Comments

Sum of 2s and 1s [5]

Other Raw Score = [5]

Internalizing Raw Score + [0]

Externalizing Raw Score + [2]

Other Raw Score + [5]

Maladaptive Behavior Index Raw Score* = [7] SUM

**Sum the Internalizing, Externalizing, and Other Raw Scores to obtain the Maladaptive Behavior Index Raw Score.*

Figure 3.4 Section A, Section B, Section C, and Problem Behaviors raw scores computed on the Parent/Caregiver Rating Form for a child aged 5 years

Problem Behaviors Part 1

Response Options: **2** = Often, **1** = Sometimes, **0** = Never

Section A

3+					Circle "?" If You Have a Question
	1	Is overly dependent (that is, clings to caregiver, teacher, brother, or sister).	(0)	1	2	?
	2	Avoids others and prefers to be alone.	(0)	1	2	?
	3	Has eating difficulties (for example, eats too fast or too slowly, hoards food, overeats, refuses to eat, etc.).	(0)	1	2	?
	4	Has sleep difficulties (for example, sleepwalks, has frequent nightmares, sleeps significantly more or less than typical for his or her age).	(0)	1	2	?
	5	Refuses to go to school or work because of fear, feelings of rejection or isolation, etc.	(0)	1	2	?
	6	Is overly anxious or nervous.	(0)	1	2	?
	7	Cries or laughs too easily.	(0)	1	2	?
	8	Has poor eye contact (that is, does not look at or face others when speaking or spoken to).	(0)	1	2	?
	9	Is sad for no clear reason.	(0)	1	2	?
	10	Avoids social interaction.	(0)	1	2	?
	11	Lacks energy or interest in life.	(0)	1	2	?

Section B

3+					Circle "?" If You Have a Question
	1	Is impulsive (that is, acts without thinking).	0	(1)	2	?
	2	Has temper tantrums.	(0)	1	2	?
	3	Intentionally disobeys and defies those in authority.	(0)	1	2	?
	4	Taunts, teases, or bullies.	0	(1)	2	?
	5	Is inconsiderate or insensitive to others.	(0)	1	2	?
	6	Lies, cheats, or steals.	(0)	1	2	?
	7	Is physically aggressive (for example, hits, kicks, bites, etc.).	(0)	1	2	?
	8	Is stubborn or sullen.	(0)	1	2	?
	9	Says embarrassing things or asks embarrassing questions in public (for example, "You're fat," or "What's that big red thing on your nose?").	(0)	1	2	?
	10	Behaves inappropriately at the urging of others.	(0)	1	2	?

Section C

3+					Circle "?" If You Have a Question
	1	Sucks thumb or fingers.	0	(1)	2	?
	2	Wets bed or must wear diapers at night.	(0)	1	2	?
	3	Acts overly familiar with strangers (for example, holds hands, hugs, sits on lap, etc.).	(0)	1	2	?
	4	Bites fingernails.	0	(1)	2	?
	5	Has tics (that is, involuntary blinking, twitching, head shaking, etc.).	(0)	1	2	?

Figure 3.4, *continued*

Problem Behaviors Part 1, continued

Response Options: 2 = Often, 1 = Sometimes, 0 = Never

Section C, *continued*			Circle "?" If You Have a Question
6	Grinds teeth during the day or night.	0 (1) 2	?
7	Has a hard time paying attention.	0 (1) 2	?
8	Is more active or restless than others of same age.	0 (1) 2	?
9	Uses school or work property (for example, telephone, Internet access, office supplies, etc.) for unapproved personal purposes.	(0) 1 2	?
10	Swears.	(0) 1 2	?
11	Runs away (that is, is missing for 24 hours or longer).	(0) 1 2	?
12	Is truant from school or work.	(0) 1 2	?
13	Ignores or doesn't pay attention to others around him or her.	(0) 1 2	?
14	Uses money or gifts to "buy" affection.	(0) 1 2	?
15	Uses alcohol or illegal drugs during the school or work day.	(0) 1 2	?

Problem Behaviors Part 2

Response Options: 2 = Often, 1 = Sometimes, 0 = Never, S = Severe, M = Moderate

Section D				Circle "?" If You Have a Question
3+ ☛ 1	Engages in inappropriate sexual behavior (for example, exposes self, masturbates in public, makes improper sexual advances, etc.).	0 1 2	S M	?
2	Is obsessed with objects or activities (for example, constantly repeats words or phrases, is preoccupied with mechanical objects, etc.).	0 1 2	S M	?
3	Expresses thoughts that do not make sense (for example, talks about hearing voices, seems delusional, etc.).	0 1 2	S M	?
4	Has strange habits or ways (for example, makes repetitive noises, odd hand movements, etc.).	0 1 2	S M	?
5	Consistently prefers objects to people (for example, pays more attention to objects than to people, etc.).	0 1 2	S M	
6	Displays behaviors that cause injury to self (for examp bites self, tears at skin, etc.).			
7	Destroys own or another's possessions on purpose.			
8	Uses bizarre speech (for example, has conversations v in phrases or sentences that have no meaning, repeats and over, etc.).			
9	Is unaware of what is happening around him or her (fe in a "fog," stares blankly, etc.).			
10	Rocks back and forth repeatedly.			
11	Is unusually fearful of ordinary sounds, objects, or situ			
12	Remembers odd information in detail years later.			
13	Is unable to complete a normal school or work day be chronic pain or fatigue.			
14	Is unable to complete a normal school or work day be psychological symptoms.			

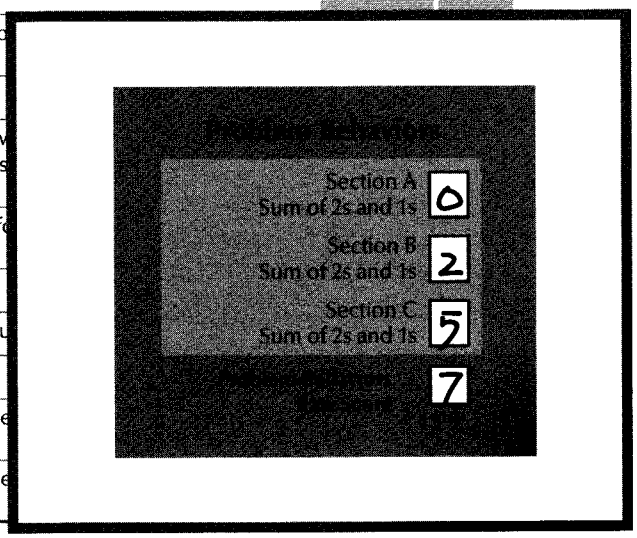
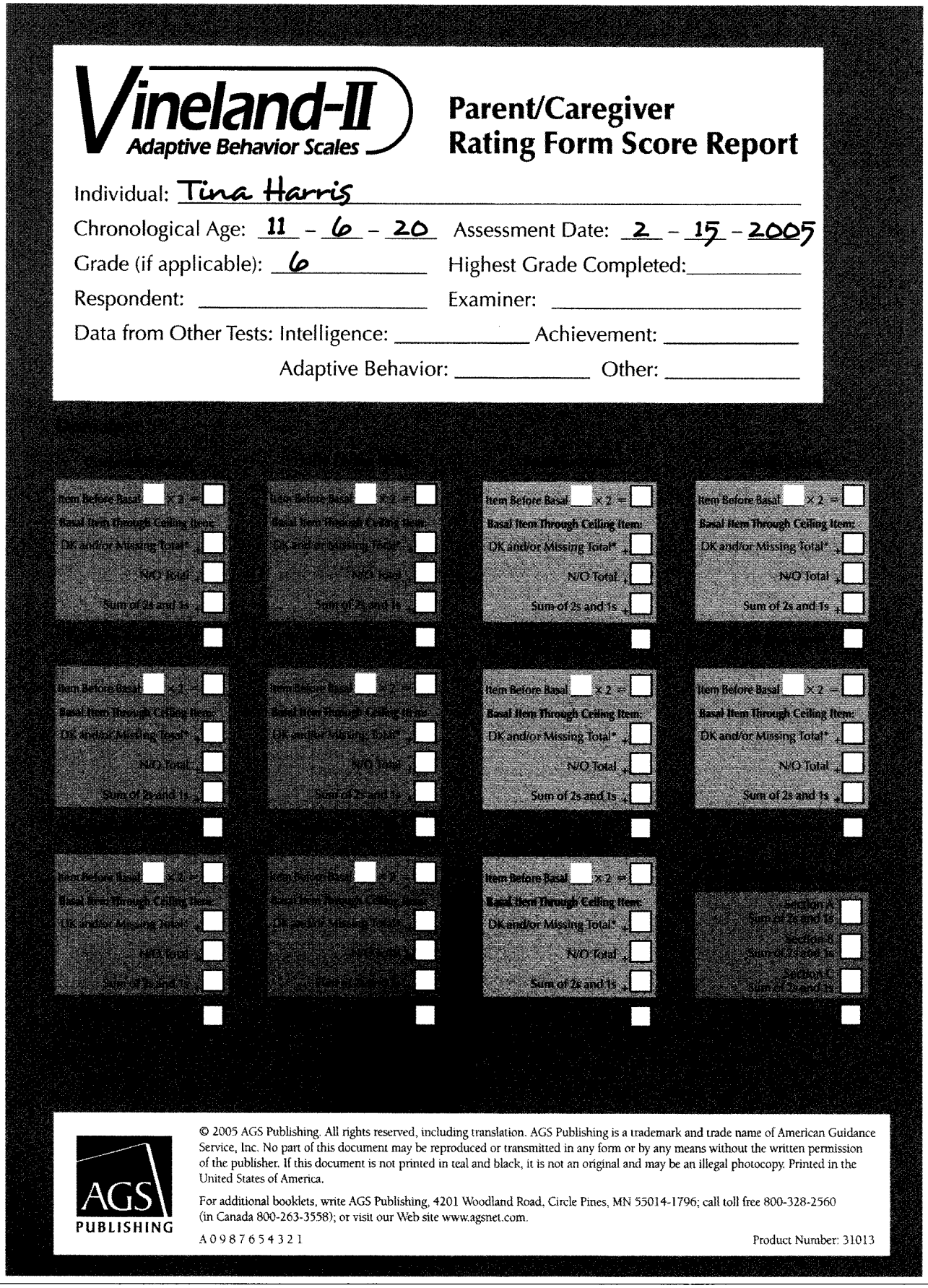


Figure 3.5 Front page of Detached Parent/Caregiver Rating Form Score Report



Vineland-II
Adaptive Behavior Scales

Parent/Caregiver
Rating Form Score Report

Individual: Tina Harris

Chronological Age: 11 - 6 - 20 Assessment Date: 2 - 15 - 2005

Grade (if applicable): 6 Highest Grade Completed: _____

Respondent: _____ Examiner: _____

Data from Other Tests: Intelligence: _____ Achievement: _____

Adaptive Behavior: _____ Other: _____

Item Before Basal ___ X 2 = ___
Basal Item Through Ceiling Item:
DK and/or Missing Total* +
N/O Total +
Sum of 2s and 1s +

Item Before Basal ___ X 2 = ___
Basal Item Through Ceiling Item:
DK and/or Missing Total* +
N/O Total +
Sum of 2s and 1s +

Item Before Basal ___ X 2 = ___
Basal Item Through Ceiling Item:
DK and/or Missing Total* +
N/O Total +
Sum of 2s and 1s +

Item Before Basal ___ X 2 = ___
Basal Item Through Ceiling Item:
DK and/or Missing Total* +
N/O Total +
Sum of 2s and 1s +

Item Before Basal ___ X 2 = ___
Basal Item Through Ceiling Item:
DK and/or Missing Total* +
N/O Total +
Sum of 2s and 1s +

Item Before Basal ___ X 2 = ___
Basal Item Through Ceiling Item:
DK and/or Missing Total* +
N/O Total +
Sum of 2s and 1s +

Item Before Basal ___ X 2 = ___
Basal Item Through Ceiling Item:
DK and/or Missing Total* +
N/O Total +
Sum of 2s and 1s +

Item Before Basal ___ X 2 = ___
Basal Item Through Ceiling Item:
DK and/or Missing Total* +
N/O Total +
Sum of 2s and 1s +

Item Before Basal ___ X 2 = ___
Basal Item Through Ceiling Item:
DK and/or Missing Total* +
N/O Total +
Sum of 2s and 1s +

Section A
Sum of 2s and 1s +
Section B
Sum of 2s and 1s +
Section C
Sum of 2s and 1s +

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Product Number: 31013

Completing the Score Report

This section illustrates the steps necessary to complete the Score Report of both the Survey Interview Form and the Parent/Caregiver Rating Form. Topics are organized to coordinate with the actual sequence of completing an individual's report, from entering the individual's identifying information to completing pairwise comparisons of the domain and subdomain scores. For a full description of the types of scores used on the Vineland–II Survey forms and how to interpret them, refer to Chapter 4.

Cover Page

For the Survey Interview Form, the cover of the detachable 4-page Score Report provides space for recording the individual's name, chronological age, grade (if applicable), and highest grade completed (if applicable); the assessment date; the respondent's name; and the examiner's name. Although this information is also recorded on the front cover of the record booklet, entering it on the Score Report allows you to detach the Score Report from the record booklet and file it separately if you so choose. For the Parent/Caregiver Rating Form, the cover of the Score Report provides space for recording identifying information as well as computing and recording subdomain raw scores (see **Figure 3.5**). This design eliminates the need for score boxes in the record booklet where they may confuse parents or caregivers completing the form.

Score Summary Page

Subdomain and Domain Scores

This section of the Score Summary page provides space for recording all of the derived scores corresponding to the subdomains, domains, and Adaptive Behavior Composite. The derived scores are arranged on the Score Summary page in the order of common use, with the most frequently used scores on the left. The instructions for obtaining these derived scores are presented below in this same order. **Table 3.1** provides a summary of these instructions.

Table 3.1 Summary Instructions for Obtaining Derived Scores from Tables in Appendixes B and C

Derived Scores	Table	Information required
v-scale scores for adaptive behavior subdomains	B.1 Page 183	Chronological age Subdomain raw scores
Standard scores for adaptive behavior domains	B.2 Page 230	Chronological age Domain raw scores
Standard score for Adaptive Behavior Composite	B.2 Page 230	Chronological age Sum of domain standard scores (excluding Motor Skills for ages 7:0 and above)
Confidence intervals for Subdomain *v*-scale scores Confidence intervals for standard scores for adaptive behavior domains and Adaptive Behavior Composite	C.1 C.2 Page 251	Chronological age Desired level of confidence (85, 90, 99%)
National percentile ranks and stanines for adaptive behavior domains and Adaptive Behavior Composite	C.3 Page 252	Domain and Adaptive Behavior Composite standard scores
Adaptive levels for adaptive behavior domains and Adaptive Behavior Composite	C.4 Page 253	Domain and Adaptive Behavior Composite standard scores
Adaptive levels for subdomains	C.4 Page 253	Subdomain *v*-scale scores
Age equivalents for subdomains	C.5 Page 253	Subdomain raw scores
Confidence intervals for Maladaptive Behavior Subscales and Index Maladaptive levels for Maladaptive Behavior Index	C.6 C.7 Page 256	Chronological age Maladaptive Behavior Index and subscale *v*-scale scores

Some scores are available only for subdomains and others only for domains. Cells are shaded dark gray to indicate that a score is not available. Note that the boxes for the Adaptive Behavior Composite scores correspond to the column headings in this section, and that all the derived scores that can be obtained for the domains can also be obtained for the Adaptive Behavior Composite. Moreover, note that when a heading in the Subdomain and Domain Scores section corresponds exactly to a heading in the Maladaptive Behavior Index section (e.g., __% Confidence Interval) the instructions below apply to the maladaptive section as well. **Figure 3.6** illustrates a completed Score Summary Page.

Figure 3.6 Score Summary page

Individual: _____ Date: _____ Age: 5-4 Form: ___ Survey Interview ✓ Parent/Caregiver Rating

VINELAND–II SCORE SUMMARY

SUBDOMAIN and DOMAIN SCORES

SUBDOMAIN/ DOMAIN	Raw Score	v-Scale Score	Standard Score	90% Conf. Interval	%ile Rank	Adaptive Level	Age Equivalent	Stanine
Receptive	35	16		14-18 ±2		Adequate	6:6	
Expressive	60	9		8-10 ±1		Low	2:9	
Written	14	14		12-16 ±2		Adequate	5:2	
Communication	Sum:	39	87	81-97 ±6	19	Adequate		3
Personal	61	14		12-16 ±2		Adequate	5:0	
Domestic	20	17		15-19 ±2		Adequate	7:5	
Community	27	15		13-17 ±2		Adequate	5:6	
Daily Living Skills	Sum:	46	101	94-108 ±7	53	Adequate		5
Interpersonal Relationships	36	10		8-12 ±2		Moderately Low	2:4	
Play and Leisure Time	39	14		12-16 ±2		Adequate	4:8	
Coping Skills	24	14		12-16 ±2		Adequate	4:6	
Socialization	Sum:	38	86	80-92 ±6	18	Adequate		3
Gross		12		10-14 ±2		Moderately Low	3:9	
Fine	63	16		14-18 ±2		Adequate	5:8	
Motor Skills	Sum:	28	94	84-104 ±10	34	Adequate		4

Sum of Domain Standard Scores = 368

Adaptive Behavior Composite | 90 | 86-94 ±4 | 25 | Av | | 4 |

	Raw Score	v-Scale Score	90% Conf. Interval	Level
Maladaptive Behavior Index	1	12	10-14 ±2	Av
Internalizing	0	12	10-14 ±2	Av
Externalizing	1	13	11-15 ±2	Av

Maladaptive Behavior Critical Items

Items (Circle all items scored 2 or 1, and indicate the severity.)

1 S M 2 S M 3 S M 4 S M 5 S M 6 S M 7 S M 8 S M 9 S M 10 S M 11 S M 12 S M 13 S M 14 S M

STRENGTHS and WEAKNESSES

Score Minus *Median**	S(trength) or W(eakness)
2	S
-5	W
0	–
-35	–
-1	–
2	S
0	–
105	S
-4	W
0	–
0	–
45	–
-2	W
2	S
35	–

* *For instructions on how to determine the median score, see Chapter 3 of the Vineland–II Survey Forms Manual.*

Domain Strengths/ Weaknesses:
S = Standard Score − Median ≥ 10
W = Standard Score − Median ≤ −10

Subdomain Strengths/ Weaknesses:
S = v-Scale Score − Median ≥ 2
W = v-Scale Score − Median ≤ −2

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Raw Score. Raw scores apply only to subdomains and maladaptive behavior subscales. To facilitate accurate transfer of the subdomain raw scores, the subdomains and domains are presented in the same order as they appear within the record form and on the front cover of the Parent/Caregiver Rating Form Score Report. Transfer each subdomain raw score from its subdomain raw score box (located in the record form or on the cover page of the Score Report) to the appropriate box in the column labeled "Raw Score."

For the maladaptive subscales, transfer the Internalizing, Externalizing, and Maladaptive Behavior Index raw scores to the appropriate boxes in the column labeled "Raw Score." As described previously, on the Parent/Caregiver Rating Form these scales are labeled Section A, Section B, and Problem Behaviors raw scores, respectively.

v-Scale Score. Each subdomain and maladaptive behavior subscale raw score has a corresponding v-scale score. Norms tables for the subdomain v-scale scores are provided for 94 age ranges, each occupying a page of Table B.1 in Appendix B. Norms tables for the maladaptive behavior v-scale scores are provided for five age ranges in Table B.3. The age range represented by each page is printed in the top left corner of the page.

To obtain the v-scale score for each subdomain, first locate the page of Table B.1 that corresponds to the individual's chronological age. Find the individual's subdomain raw score in the column for that subdomain. Read across the row to obtain the corresponding v-scale score, and record it in the appropriate box in the column labeled "v-Scale Score." Repeat this procedure for each subdomain. Then, repeat the procedure for the maladaptive behavior raw scores (Internalizing, Externalizing, and Maladaptive Behavior Index), using the age-appropriate page of Table B.3.

> **Motor Skills Domain:** Gross and Fine Motor Subdomain v-scale scores are supplied for individuals between the ages of birth and 6:11 and between the ages of 50 and 90. For individuals between the ages of 7 and 21, an estimated v-scale score can be obtained by using the v-scale conversion table corresponding to the 6:9 through 6:11 age range. For individuals between the ages of 22 and 49, an estimated v-scale score can be obtained by using the v-scale conversion table corresponding to the 50 through 54 age range. See Chapter 4 for a discussion of the appropriate use of these estimated Motor Skills Domain scores.

Standard Score. Standard scores are provided for the domains and the Adaptive Behavior Composite. For each domain, compute the sum of its subdomain v-scale scores and record it on the line labeled "Sum." Find the standard score corresponding to this sum of v-scale scores by using Table B.2 in Appendix B. Find the page of Table B.2 for the individual's chronological age, and follow the same procedure described above in the v-scale score section to obtain the standard score.

To obtain the Adaptive Behavior Composite, first, compute the sum of the domain standard scores and record this total in the box labeled "Sum of Domain Standard Scores," located just below the Subdomain and Domain Scores table. For individuals aged birth through 6:11, sum the domain scores for *all four* adaptive behavior domains. For individuals aged 7:0 and older, sum the Communication, Daily Living Skills, and Socialization domain scores. (Do not include the Motor Skills Domain score at ages 7 and older.) Then, use Table B2 to convert the sum of domain standard scores to the Adaptive Behavior Composite standard score. Record that value in the appropriate box in the row labeled "Adaptive Behavior Composite."

___% Conf. Interval. Confidence intervals should be reported for v-scale scores and standard scores. Three levels of confidence are provided: 85 percent, 90 percent, and 95 percent. Before completing this column, choose one of these three confidence levels and record that value in the blank space at the top of the column. For most purposes the authors recommend using the 90 percent confidence level. Appendix C provides the numerical values used to construct confidence intervals. Use Table C.1 for subdomain v-scale scores, Table C.2 for domain and Adaptive Behavior Composite standard scores, and Table C.6 for maladaptive behavior v-scale scores. To use these tables, first locate the age that corresponds to the individual's chronological age. Then, read across the row to find the confidence-interval value for that domain or subdomain and confidence level. Record the value in the lower corner of the appropriate box in the column labeled "___% Conf. Interval," next to the "+/-" symbol. Repeat this procedure for each subdomain, maladaptive subscale, domain, and the Adaptive Behavior Composite. For convenience, the values corresponding to the 90 percent confidence level are printed at the bottom of each page of the norm tables for subdomain and maladaptive behavior v-scale scores.

Next, subtract the confidence-interval value from each v-scale score or standard score to obtain the lower end of that confidence interval, and add the value to the score to obtain the upper end of the interval. Write the interval, as a range, in the appropriate box in the column labeled "___% Conf. Interval." Note that whichever of the three

confidence levels is chosen, the same level should be used for all subdomains and domains.

%ile Rank. Percentile ranks are provided for domain standard scores and the Adaptive Behavior Composite. Because the relationship between percentile ranks and standard scores is the same for every age group and for all domains and the Adaptive Behavior Composite, you can refer to just one table, Table C.3, to find the percentile rank corresponding to each standard score. First, locate the individual's standard score in the table. Then, read across the row to the column labeled "Percentile Rank," and record this value in the appropriate box in the column labeled "%ile Rank." Repeat the procedure for each domain and the Adaptive Behavior Composite.

Adaptive Level. Adaptive levels provide a means to describe an individual's performance using terms that are nearly universal. The Vineland–II defines five adaptive levels for subdomain and domain scores and the Adaptive Behavior Composite: Low, Moderately Low, Adequate, Moderately High, and High. Use Table C.4 to determine the adaptive level corresponding to each *v*-scale score and standard score. Identify the score range that includes the individual's subdomain or domain score, and record the adaptive level that corresponds to that range in the appropriate box in the column labeled "Adaptive Level."

Maladaptive Level. The maladaptive subscales and the Maladaptive Behavior Index use a different system for describing an individual's maladaptive performance level: consisting of three categories: Average, Elevated, and Clinically Significant. Use Table C.7 to obtain the maladaptive level that corresponds to each maladaptive *v*-scale score. On the maladaptive behavior section of the Score Summary page, record the maladaptive level in the appropriate box in the column labeled "Level."

Age Equivalent. The age equivalent of a subdomain raw score represents the age at which that score is average. Because age equivalents correspond to raw scores, which are computed for subdomains only, age equivalents are not given for domains. To obtain the age equivalent corresponding to a subdomain raw score, use Table C.5. Scan down the column for a given subdomain until you find the individual's subdomain raw score, and read across the row to the value in the age equivalent column. Record that value in the appropriate box in the column labeled "Age Equivalent." Repeat this procedure for each subdomain.

Stanine. The final derived score included in the Subdomain and Domain Scores table is the stanine. Use Table C.3, also used to obtain percentile ranks, to find the stanine that corresponds to each domain standard score and the Adaptive Behavior Composite. In the table's standard score column, locate the value that corresponds to the individual's standard scores. Read across the row to the column labeled "Stanine" and record that value in the appropriate box in the column labeled "Stanine" on the Score Summary page. Repeat this procedure for each domain standard score and the Adaptive Behavior Composite standard score.

Maladaptive Behavior Critical Items

In the area of the Score Summary page labeled "Maladaptive Behavior Critical Items," circle the item number of each item that was scored "2" or "1" on the Maladaptive Behavior Critical Items section of the Survey Interview Record Form. If the Parent/Caregiver Rating form was used, circle the item number of each item that was scored "2" or "1" on Problem Behaviors Section D. Additionally, for each item circled, circle "S" (severe) or "M" (moderate) to indicate the severity of the behavior.

Strengths and Weaknesses

This section of the Score Summary page allows you to evaluate an individual strengths and weaknesses by comparing his or her performance on subdomains within a domain, and by comparing his or her performance on each domain with that on each of the other domains. In general, three steps are required to determine strengths and weaknesses: computing the individual's median score either of the subdomain *v*-scale scores within a domain, or of the domain standard scores; subtracting the median from each of the subdomain *v*-scale scores (or domain standard scores); and comparing the differences to the standards established for subdomain and domain strengths and weaknesses, which are described in the gray section below the Strengths and Weaknesses table on the Score Summary page.

Calculating the Median Score. Order the subdomain *v*-scale scores within a domain (or the domain standard scores) from smallest to largest. Next, determine the median. Use the process described below that corresponds to the number of ordered scores.

- When **two scores** are used (e.g., when comparing the Gross and Fine Motor Skills subdomains), the median is determined by summing the two scores and dividing the sum by two.

- When **three scores** are used, the median is the middle score.
- When **four scores** are used, the median is calculated by summing the middle two scores and dividing the sum by two.

No space is provided on the Score Summary page for computing the median. If necessary, use scratch paper or the white space to make the calculation. Repeat this process for each set of subdomains and for the domains.

Computing Differences. Use the column labeled "Score Minus Median" to record the difference of each subdomain *v*-scale score (or domain standard score) from the median. For subdomains, subtract the median *v*-scale score for that domain from each subdomain *v*-scale score, and record each difference with the appropriate sign (+ or -) on the appropriate line. For domains, subtract the median domain standard score from each domain standard score and record the difference with the appropriate sign (+ or -) on the appropriate line.

Strength or Weakness. A ***subdomain*** is considered a strength if the difference from the median is greater than or equal to +2. Similarly, a ***subdomain*** is considered a weakness if the difference from the median is less than or equal to –2 (e.g., a difference equal to –3 represents a weakness). A ***domain*** is considered a strength if the difference from the median is greater than or equal to +10. Similarly, a ***domain*** is considered a weakness if the difference from the median is less than or equal to –10. On the Score Summary page, mark an *S* for Strength or mark a *W* for Weakness on the appropriate line in the column labeled "Strength or Weakness." If the domain or subdomain is neither a strength nor a weakness, leave the line blank.

Score Profile Page

The Score Profile page of the Score Report allows you to graphically display an individual's domain standard scores and subdomain *v*-scale scores. A graphic display of scores provides a snapshot of an individual's level of adaptive functioning and is a useful way to depict an individual's functional assets and deficits. Moreover, an individual's graphical score profile may be compared to prototypical profiles from clinical groups as a method to improve classification.

Completing the Score Profiles

The Score Profile page contains two profiles: the Domain Score Profile and the Subdomain Score profile. The following sections detail the necessary steps to complete each profile. **Figure 3.7 and 3.8** illustrate completed Domain Score and Subdomain Score Profiles, respectively.

Domain Score Profile

1. From the Score Summary page, transfer the individual's domain and Adaptive Behavior Composite standard scores and confidence intervals to the appropriate line in the correct column on the Score Profile page.
2. For each domain and the Adaptive Behavior Composite, place a mark corresponding to the obtained standard score on the appropriate graph line.
3. Place a mark corresponding to each end of the confidence interval, and darken in the area of the line between the two ends of the confidence interval.

Subdomain Score Profile

1. From the Score Summary page, transfer the individual's subdomain *v*-scale scores and confidence intervals to the appropriate line in the correct column on the Score Profile page.
2. For each subdomain, place a mark corresponding to the obtained *v*-scale score on the appropriate graph line.
3. Place a mark corresponding to each end of the confidence interval, and darken the area of the line between the two ends of the confidence interval.

Figure 3.7 Completed Domain Score Profile

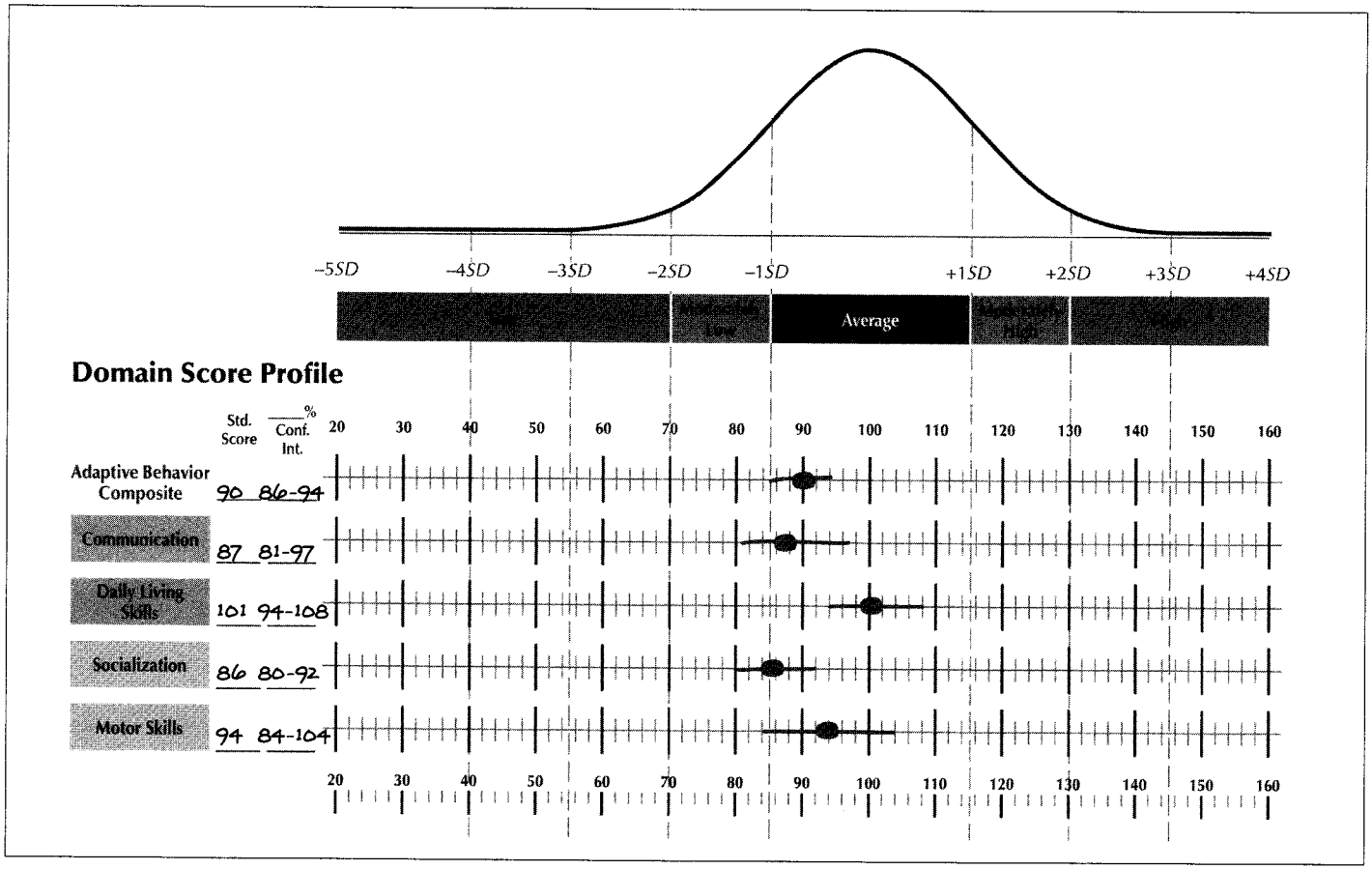
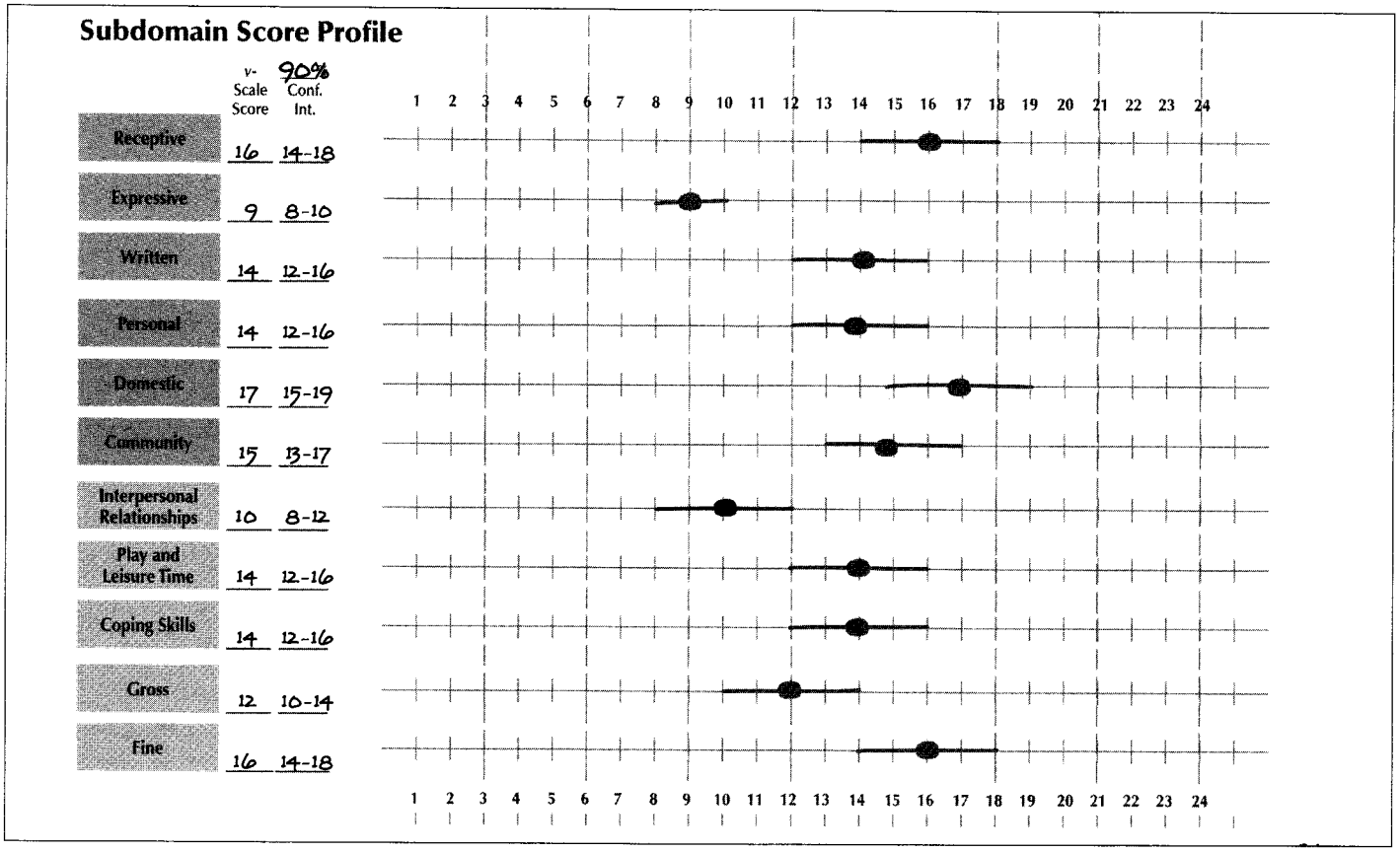


Figure 3.8 Completed Subdomain Score Profile


Subdomain Score Profile
v-Scale Score
90% Conf. Int.
Receptive 16 14-18
Expressive 9 8-10
Written 14 12-16
Personal 14 12-16
Domestic 17 15-19
Community 15 13-17
Interpersonal Relationships 10 8-12
Play and Leisure Time 14 12-16
Coping Skills 14 12-16
Gross 12 10-14
Fine 16 14-18
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

Pairwise Comparisons Page

The Pairwise Comparisons page, the last page of the Score Report, allows you to make statistical analyses of the score differences between pairs of subdomains and pairs of domains, including whether the differences are statistically significant and whether they occurred infrequently in the standardization sample.

Pairwise comparisons can be conducted three ways: by comparing domain standard scores (for example, comparing Communication and Socialization scores); by comparing subdomain *v*-scale scores within a domain (for example, comparing Personal and Domestic scores within the Daily Living Skills Domain); and by comparing subdomain *v*-scale scores across domains (for example, comparing the Expressive score from the Communication Domain with the Coping Skills score from the Socialization Domain).

Domain Pairwise Comparisons

For individuals who were assessed on three domains (Communication, Daily Living Skills, and Socialization), three domain pairwise comparisons are possible. For individuals who were assessed on all four domains, six domain pairwise comparisons are possible. Please note that administration of the Motor Skills Domain is optional for individuals between the ages of 7 and 49. If the Motor Skills Domain was administered for an individual between the ages of 7 and 49 and an estimated standard score was obtained, do *not* use the Motor Skills Domain in the comparisons.

Subdomain Pairwise Comparisons

Subdomain pairwise comparisons compare the *v*-scale scores of subdomains within a domain. Additionally, the user may compare the *v*-scale scores of subdomains from different domains. Listed in this section are five across-domain comparisons that may provide meaningful information about related areas of functioning. Additional space is provided in the across-domain section to write in other across-domain subdomain comparisons, as desired.

Completing the Pairwise Comparisons Page

The following sections describe the steps for completing pairwise comparisons. The sections are organized to coincide with the column heading on the Pairwise Comparisons page. Follow these steps to complete both domain pairwise comparisons and subdomain pairwise comparisons, whether within-domain or across-domains. (See **Figure 3.9** for a sample completed Pairwise Comparison page.)

Figure 3.9 Completed Pairwise Comparison page for a child aged 5 years 4 months

VINELAND–II PAIRWISE COMPARISONS

Domain Comparisons	Standard Score	<, >, or =	Standard Score		Standard Score Difference	Stat. Sign. Level (.05 or .01)	Freq. of Difference (Extreme 16, 10, 5, or 1%)
Communication	87	<	101	Daily Living Skills	14	✓	16
Communication	87	>	86	Socialization	1		
Daily Living Skills	101	>	86	Socialization	15	✓	10
Communication	87	<	94	Motor Skills	7		
Socialization	86	<	94	Motor Skills	8		
Daily Living Skills	101	<	94	Motor Skills	7		
Subdomain Comparisons	*v*-Scale Score	<, >, or =	*v*-Scale Score		*v*-Scale Score Difference	Stat. Sign. Level (.05 or .01)	Freq. of Difference (Extreme 16, 10, 5, or 1%)
Communication							
Receptive	16	>	9	Expressive	7	✓	1
Receptive	16	>	14	Written	2		
Expressive	9	<	14	Written	5	✓	5
Daily Living Skills							
Personal	14	<	17	Domestic	3		16
Personal	14	<	15	Community	1		
Domestic	17	>	15	Community	2		
Socialization							
Interpersonal Relationships	10	<	14	Play and Leisure Time	4	✓	5
Interpersonal Relationships	10	<	14	Coping Skills	4	✓	1
Play and Leisure Time	14	=	14	Coping Skills	0		
Motor Skills							
Gross	12		16	Fine	4	✓	10
Selected Across-Domain Subdomain Comparisons	*v*-Scale Score	<, >, or =	*v*-Scale Score		*v*-Scale Score Difference	Stat. Sign. Level (.05 or .01)	Freq. of Difference (Extreme 16, 10, 5, or 1%)
Expressive	9	<	10	Interpersonal Relationships	1		
Expressive	9	<	14	Coping Skills	5	✓	1
Fine	16	>	14	Written	2		
Fine	16	<	17	Domestic	1		
Fine	16	>	14	Personal	2		

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Standard Score or v-Scale Score. The second and fourth columns on the Pairwise Comparisons page are either both labeled "Standard Score" (for domain comparisons) or both labeled "*v*-Scale Score" (for subdomain comparisons). The second column is used to record the appropriate score for the domain or subdomain to its **left** (see **Figure 3.9**); the fourth column is used to record the appropriate score for the domain or subdomain to its **right**. From the Score Summary page, transfer the individual's *v*-scale scores and standard scores, recording each on the appropriate box in the appropriate column. Transfer standard scores for the domain comparisons and *v*-scale scores for the subdomain comparisons.

<, >, or =. In the shaded column, labeled "<, >, or =," record a symbol for > (is greater than), < (is less than), or = (is equal to) to indicate whether the score recorded to the left of this column is greater than, less than, or equal to the score recorded to the right of this column. Record a symbol for each comparison being made.

Standard Score Difference or v-Scale Score Difference. Compute the difference between the scores being compared, subtracting the smaller score from the larger score, and record the difference in the column labeled "Standard Score Difference" (for domain comparisons) or "*v*-Scale Score Difference" (for subdomain comparisons). Compute the difference for each comparison being made.

Statistical Significance. The next step is to evaluate the statistical significance of the difference computed in the previous step. First, choose either the .05 level or the .01 level. The level chosen should be applied to *all* subsequent comparisons, both domain and subdomain. In the column labeled "Stat. Sign. Level," circle the chosen level. Next, locate the appropriate table. Table D.1 in Appendix D is used to determine the statistical significance for domain comparisons, and Table D.3 shows values of statistical significance for subdomain comparisons. Because many subdomain pairwise comparisons can be made, the probability of getting a significant difference by chance increases. The authors recommend using the Bonferonni adjustment for multiple comparisons. Table D.5 provides the values needed for statistical significance at the p=.05 and .01 levels after making the Bonferonni correction for 15 comparisons. Significance values will change depending on the number of comparisons. The authors recommend using Table D.5 for 10 comparisons or more; for fewer than 10, Table D.3 is recommended.

For domain comparisons, enter Table D.1 and locate the section of the table that corresponds to the individual's chronological age. In that section, find the intersection of the domains being compared and the chosen significance level. If the difference recorded on the Score Report is *greater than or equal to* the value in the table, then the difference is significant. Record a check mark in the appropriate box in the column labeled "Stat. Sign. Level." If the difference is *not* significant, leave the box empty. Repeat these steps for each domain comparison.

For subdomain comparisons, locate the part of Table D.3 that corresponds to the individual's chronological age. In that part, the numbers presented *above* the diagonal (i.e., in the non-shaded area) correspond to the .05 significance level. The numbers presented *below* the diagonal (i.e., in the shaded area) correspond to the .01 significance level. For the .05 level, find the intersection in the non-shaded area above the diagonal of the two subdomains being compared. For the .01 level, find the intersection in the shaded area below the diagonal of the two subdomains being compared. If the difference recorded on the Score Report is *greater than or equal to* the value in the table, then the difference is significant. Record a check mark in the appropriate box in the column labeled "Stat. Sign. Level." If the difference is *not* significant, leave the box empty. Repeat these steps for each subdomain comparison.

Frequency of Difference. The final step is to determine how infrequently each significant difference occurred in the standardization sample. For domain comparisons, use Table D.2. For subdomain comparisons, use Table D.4.

For domains comparisons, review Table D.2 and locate the section of the table that corresponds to the individual's chronological age. In that section and for each comparison made (labeled across the top of the table), find the value of the difference recorded for a given comparison. Then, read across the table to find the corresponding percentage (16, 10, 5, or 1) of the sample in which this difference occurred. Record this percentage in the appropriate box in column labeled "Freq. of Difference."

For subdomains, review Table D.4 and locate the section of the table that corresponds to the individual's chronological age. In that table, find the intersection of the two subdomains being compared. Then, find the value of the difference recorded for that comparison. Read across the table to find the corresponding percentage (16, 10, 5, or 1) of the sample in which this difference occurred. Finally, record this percentage in the appropriate box in the column labeled "Freq. of Difference." Repeat this procedure for each subdomain comparison.

Prorating

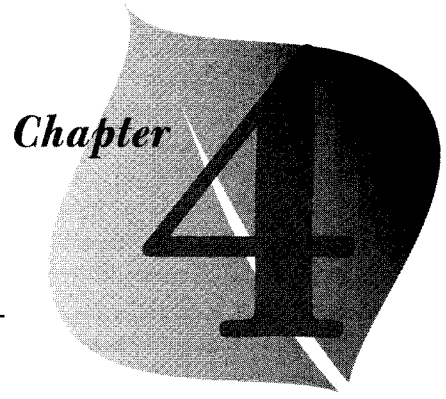
Sometimes a subdomain raw score cannot be computed because more than two items in the subdomain were assigned a score of DK (Don't Know) or were not scored. In such a case, the examiner should attempt to obtain the missing information by contacting the respondent. In the rare situation where it is impossible to score the missing items, if the unscorable subdomain is part of a domain having three subdomains and the other two subdomains have valid scores, the domain score may be estimated through prorating. **Prorating is not permitted if the entire form contains more than one unscorable subdomain. Also, prorating is not permitted for the Motor Skills Domain, or the other domains at ages where only two subdomains are administered.**

The procedure for prorating is to compute the sum of the *v*-scale scores on the two valid subdomains of the domain, and multiply that sum by 1.5 (rounding up) to obtain the prorated sum of *v*-scale scores for the domain. Then proceed in the normal fashion to convert that sum to the various derived scores, and include the prorated domain score when computing the Adaptive Behavior Composite.

Mark *P* on the Score Summary page next to the resulting domain standard score and the Adaptive Behavior Composite standard score to indicate that they were prorated.

Do not use the prorated domain score in any analyses of strengths and weaknesses or significant differences. When identifying domain strengths and weaknesses, use as a reference point the median score on the domains that are not prorated.

Interpreting Performance



After obtaining an individual's profile of standard scores on the Survey Interview Form or Parent/Caregiver Rating Form, the examiner should systematically interpret the scores. This chapter offers a step-by-step approach to interpreting global adaptive functioning as well as more specific adaptive functioning in the domains and subdomains. It includes:

- describing the standard scores in terms of their confidence intervals, and translating them into other metrics (such as percentile ranks) to facilitate communication with parents or other caregivers
- identifying the individual's strengths and weaknesses both with respect to others of the same age and relative to the individual's own overall level of adaptive functioning

For a complete description of domain and subdomain content, see Table 2.1. Chapter 5 continues the interpretive process by discussing the score patterns and profiles consistent with various disabilities and disorders.

Vineland–II Derived Scores

Raw scores on the Vineland–II subdomains are not directly interpretable. Because subdomains contain different numbers of items, are not equally difficult, have unique growth curves, and produce widely varying distributions of scores, raw scores are not comparable from one subdomain to the next. Even within a particular subdomain, raw scores do not communicate well because the same raw score may be high or low depending on the individual's age.

Raw scores, therefore, need to be converted to normative or derived scores with uniform meaning from age to age and from subdomain to subdomain. For the Vineland–II Survey Interview Form and Parent/Caregiver Rating Form, six different normative scores are available: standard scores, *v*-scale scores, percentile ranks, adaptive levels, age equivalents, and stanines.

Standard Scores

The Vineland–II uses standard scores to describe an individual's overall functioning (i.e., the Adaptive Behavior Composite), as well as his or her level of functioning in each of the adaptive behavior domains. A standard score tells the distance of the individual's raw score from the mean raw score, taking into account the standard deviation (degree of variability) of the distribution of raw scores. Like a percentile rank, a standard score relates one person's performance to the performance of a pertinent reference group. In the case of the Vineland–II, this reference group consists of other individuals of the same age. Unlike percentile ranks, however, a difference of a certain size between two standard scores represents the same amount of difference in ability regardless of where the score falls on the scale; thus, the distance between standard scores of 75 and 90 has the same meaning as the distance between scores of 110 and 125.

On the Vineland–II, as on almost all other individually administered assessment instruments, the standard score scale has a mean of 100 and a standard deviation of 15, and score distributions for the Adaptive Behavior Composite and domains have been "normalized" (put into the form of a normal curve). The range of standard scores that is within one standard deviation of the mean in either direction (i.e., from 85 to 115) includes about 68 percent of the individuals in a given age; the range within two standard deviations below and above the mean (70 to 130) includes 95 percent, and the range within three standard deviations below and above the mean (55 to 145) includes 99 percent of the population. The Adaptive Behavior Composite and domains of the Vineland–II have a maximum range of 20 to 160, or from about 5 standard deviations below the mean to 4 standard deviations above the mean. The Score Profile page of the Score Report (included in the Survey Interview Form and Parent/Caregiver Rating Form record booklets) shows a normal curve and indicates where various standard score values fall on the curve.

V-Scale Scores

The Vineland–II uses a type of standard-score scale called the *v*-scale to describe an individual's relative level of functioning on the subdomains and on the subscales of the Maladaptive Behavior Index, compared with others of the same age. *V*-scale scores are related to the *scaled scores* of many other tests, which have a mean of 10 and a standard deviation of 3; the difference is that Vineland–II *v*-scale scores have a mean of 15 and a standard deviation of 3. This higher value of the mean is important because adaptive behavior measures are often used with very low functioning individuals, including those with mental retardation or autism, creating the need for finer differentiation at low levels of performance. Vineland–II *v*-scale scores range from 1 ($4\frac{2}{3}$ standard deviations below the mean) to 24 (3 standard deviations above the mean). Like standard scores, *v*-scale scores display equal units across the full range of scores; thus, the distance between *v*-scale scores of 10 and 13 has the same meaning as the distance between scores of 3 and 6. The normal curve shown on the Score Profile page of the Score Report also indicates where various *v*-scale score values fall on the curve.

Confidence Intervals

Because all assessments are imprecise to some degree, examiners need to apply the standard error of measurement (*SEM*) whenever they interpret and describe an individual's performance. The *SEM* may be thought of as the average difference between individuals' obtained scores and their *true scores*, that is, the scores they would obtain if the assessment instrument were perfectly accurate. The routine application of *SEM*s to an individual's obtained standard scores encourages a less rigid interpretation of the actual values earned and helps thwart misinterpretation and test abuse.

Placing a band of error around an obtained standard score or *v*-scale score creates a range of scores (called a *confidence interval*) that has a certain likelihood of including the individual's true score. Because a confidence interval is a function of the reliability of the domain or subdomain, it is usually different for each age. Confidence interval values for three levels of confidence (85, 90, and 95 percent) are presented in Appendix C, Table C.2 for the Vineland–II standard scores and Table C.1 for subdomain *v*-scale scores. The higher the confidence level, the wider the band of error. Users may select any of the three confidence levels, but the authors recommend the 90 percent confidence level as being suitable for most applications.

Percentile Ranks

Although standard scores have excellent psychometric properties, they frequently are not understood by parents, teachers, and others interested in the results of an evaluation. Thus, additional ways of reporting performance levels are necessary for communicating results. Percentile ranks can facilitate this communication because they tend to be readily understood by most people. Regardless of the domain, or the age of the individual, percentile ranks convey the same meaning: the percentage of people whom the individual outperformed in his or her age group. For example, a 15-year-old who scores in the 84th percentile in the Socialization Domain performed better than 84 percent of other 15-year-olds on that domain.

For the Vineland–II, percentile ranks are available for the Adaptive Behavior Composite and the domains, but not for the subdomains. The reason is that the units of the percentile scale exaggerate the precision of the *v*-scale. The *v*-scale covers with 24 points the same range that the percentile ranks cover with 99 points; thus, each *v*-scale score represents a range of percentile ranks. Furthermore, the size of that range varies depending on the location on the *v*-scale. For example, a *v*-scale score of 15 is represented by the percentile ranks from 43 through 57. In contrast, a *v*-scale score of 23 and a *v*-scale score of 24 both correspond to a percentile rank of 99.

A major limitation of percentile ranks is that, unlike standard score units, percentile rank units are unequal. For example, a 13-year-old child obtains a Daily Living Skills standard score of 85 and a Socialization standard score of 70, with percentile ranks of 16 and 2, respectively. Another 13-year-old child obtains standard scores of 100 and 94, with percentile ranks of 50 and 34, respectively. In these examples, the differences in percentile ranks are similar, but there is little similarity in the differences in standard scores. Even though the difference in percentile ranks is larger in the second example, it corresponds to a 6-point standard score difference; in the first example, the percentile rank difference corresponds to a 15-point standard score difference, a difference that is more than twice as large. For this reason, a good rule of thumb when interpreting performance scores is to check standard score differences first.

Adaptive Levels

In addition to the various types of derived scores reviewed above, descriptive categories provide examiners with another tool for communicating test results to individuals being assessed, their parents, and teachers. The descriptive categories used by the Vineland–II

describe levels of adaptive performance in the domains and subdomains. Broad ranges of standard and *v*-scale scores can be described using the adaptive levels of High, Moderately High, Adequate, Moderately Low, and Low.

Table 4.1 presents adaptive level descriptions that correspond to ranges of standard scores, *v*-scale scores, and percentile ranks. These descriptions express in words the approximate distance of the score range from the age-group mean. Adaptive levels are defined by the standard deviation, with the Adequate level corresponding to the range from one standard deviation below the mean to one standard deviation above (i.e., the middle 68 percent of scores). Moderately Low is defined as 1 to 2 standard deviations below the mean, and so forth.

Adaptive levels are best used to summarize an individual's overall level of functioning (e.g., the adaptive level for the Adaptive Behavior Composite) or to highlight noteworthy discrepancies among the domain or subdomain scores. When using these categories to communicate an individual's performance on the domains and subdomains, it is wise to focus mostly on significantly high or low scores as a means of clarifying his or her strengths and weaknesses.

Table 4.1 Adaptive Level Descriptions

Adaptive Level	Standard Deviations from the Mean	Standard Score Range	*v*-Scale Score Ranges	Percentile Rank Range
High	2.0 or above	130 and above	21 and above	98 and above
Moderately High	1.0–2.0	115–129	18–20	84–97
Adequate	−1.0–1.0	86–114	13–17	18–83
Moderately Low	−2.0–−1.0	71–85	10–12	3–17
Low	−2.0 or below	70 and below	9 and below	2 and below

Age Equivalents

Age equivalents communicate readily to many people who are unfamiliar with statistical concepts. When interpreted carefully, age equivalents can provide information beyond what is expressed by standard scores or percentile ranks. However, they also present significant problems of misinterpretation and should be handled carefully.

Although age equivalents are norm-referenced scores, they differ from standard scores and percentiles in that their purpose is not to indicate where the individual's raw score falls in relation to the distribution of scores for other individuals of the same age. Instead, age equivalents indicate the age level at which the average person in the population performs the same as the individual who is being assessed. For example, an age equivalent of 7:10 (7 years 10 months) on the Receptive Subdomain indicates that the individual's raw score corresponds to the average raw score for individuals aged 7 years 10 months in the standardization sample.

Age equivalents leave much to be desired because the scale units are unequal. "One year's growth" has a very different meaning at different points in the age continuum and for different areas of adaptive behavior. For instance, children acquire communication skills more rapidly between the ages of 2 and 3 than between the ages of 10 and 11; thus, a 3-year-old who obtains an age equivalent of 2 years is further behind his or her age mates than is an 11-year-old who obtains an age equivalent of 10.

Age equivalents are generally considered subordinate to percentile ranks and descriptive categories in the communication of test results. Because of their limitations, age equivalents should be used sparingly.

Table C.5 in Appendix C presents age equivalents corresponding to subdomain raw scores. Age equivalents are not provided for the domains or the Adaptive Behavior Composite because age equivalents can be computed only for raw scores. The table shows how the relative concentration of adaptive behavior skills within a subdomain corresponds to chronological age. For example, in the Receptive Subdomain, most raw scores correspond to age equivalents between 1 month and 3 years 11 months, indicating that many of the adaptive behaviors are developmentally appropriate in the age range. On the other hand, raw scores in the Written Subdomain spread more evenly across a broad range, reflecting the persistent, steady growth of written skills across the school-age years.

In several subdomains a change of one raw score point corresponds to a large jump in the age equivalent. For example, in the Personal Subdomain a raw score increase from 71 to 72 corresponds to an age equivalent increase of about 2 years. The erratic relationship between raw score and age equivalent underscores the importance of interpreting age equivalents with caution.

Stanines

Stanines are whole-number scores that range from 1 to 9. Stanines have a mean of 5 and a standard deviation of 2. Each stanine score represents a specific range of percentile ranks. Stanines are typically used when discussing performance levels in broad, rather than precise, terms.

Levels of the Maladaptive Behavior Index

Similar to the use of descriptive categories in adaptive levels, three such categories help describe performance on Internalizing, Externalizing, and the overall Maladaptive Behavior Index. These categories convey the degree of maladaptive behavior an individual displays compared with others the same age in the normative sample. The three levels correspond to the following ranges of *v*-scale scores:

Level	*v*-Scale Score Range
Average	Below 18
Elevated	18–20
Clinically Significant	21–24

The Maladaptive Behavior Index is best used as a screening device to determine the need for further, in-depth observations and evaluations of behavior. It is not intended to be a comprehensive assessment of maladaptive behavior.

A level of Average suggests that the individual displays about the same number of maladaptive behaviors as most individuals. An Elevated level indicates the individual exhibits more maladaptive behaviors than 84 percent of those the same age in the standardization sample. When a score in the Elevated range is obtained, the test items scored 2 or 1 should be reviewed to determine the need for follow-up evaluations and observations. A Clinically Significant level indicates the individual scored in the extreme 2 percent of individuals the same age, and additional observation and evaluation is warranted.

Interpreting Estimated Motor Skills Scores for Ages 7-0-0 to 49-11-30

Standard scores for the Motor Skills Domain and *v*-scale scores for the Gross and Fine Subdomains are available in Appendix B, Tables B.1 and B.2, for two age ranges: individuals birth through 6 years, and individuals 50 through 90 years. For the first age range, motor development as measured by the Vineland–II Survey forms shows the substantial growth expected in early childhood; for the second age range, motor skills begin to show some decline. However, because of the developmental nature of the Motor Skills Domain and subdomains, there is little variability in performance for individuals aged 7 to 50; thus norms are not provided for this age range. If a motor deficit is suspected in an individual between 7 and 50, the domain may be administered and estimated Gross and Fine Subdomain *v*-scale scores may be obtained by using the procedure described in Chapter 3. For individuals between 7 and 21, the estimated scores are based on the performance of the age group 6:10:0 to 6:11:30 in the standardization sample. For individuals 22 through 49, the estimated scores are based on the performance of the age group 50 through 54. When reporting estimated scores, the user should emphasize that they are estimates of performance only. If the estimated scores indicate deficits in performance, a more comprehensive evaluation of motor development is suggested, such as the Bruininks-Oseretsky Test–Revised (Bruininks, in press).

Interpreting Raw Scores Near Zero or Near the Maximum

Raw scores at or near zero or the maximum should be interpreted with caution. For some subdomains, the relationship between raw scores and *v*-scale scores may be puzzling. The developmental nature of these subdomains produces little variability in performance for some age groups. For example, in the Domestic Subdomain, few behaviors are acquired at very young ages, and you may find raw scores at or near zero corresponding to a *v*-scale score near the average value of 15. Truncation of the lower half of the *v*-scale (*v*-scale score < 15) inhibits differentiation between adequate and less-than-adequate levels of adaptive behavior functioning. Similarly, for certain older groups, raw scores at or near the maximum correspond to *v*-scale scores of 15. In these situations truncation of the upper-half of the *v*-scale inhibits differentiation between adequate and more than adequate levels of adaptive behavior functioning. These phenomena reflect the fact that, for younger ages, zero is a fairly common raw score and, for older ages, the highest possible raw score is common.

Age equivalents determined with raw scores at or near zero or at the maximum should be interpreted with caution. The developmental nature of subdomain performance is also evident in subdomain age equivalents. If a raw score of zero results in an age equivalent higher than the individual's chronological age, this means that the individual is below the age at which the typical individual begins to perform behaviors in that area. Similarly, if a subdomain raw score at the maximum corresponds to an age equivalent lower than the individual's chronological age, he or she is performing as well as possible in the behaviors measured by that subdomain, and is not performing below age level.

Finally, when reporting domain and subdomain adaptive levels, be aware that a subdomain raw score of one or

two points may sometimes result in an adaptive level of Moderately High or High, if a large proportion of the norm sample obtained a raw score of zero or one. Similarly, a subdomain raw score that is one or two points below the maximum may correspond to an adaptive level of Moderately Low or Low, if most of the norm sample at that age scored near the maximum.

Interpretive Steps

An individual's level of adaptive functioning can be assessed by comparing his or her performance to that of others of the same age in the national standardization sample. In addition, one may investigate differences among an individual's domain standard scores, or among subdomain *v*-scale scores, thus comparing the individual's performance in one area with performance in another area. These methods and others will be described in the interpretive steps below, which are applicable to all age groups. Steps 1 through 3, which examine the individual's overall performance as well as his or her performance in the domains and subdomains, are essential. Steps 4 through 6, which profile the individual's strengths and weaknesses, are recommended. Examples are provided for two individuals of different ages: Tasha and Michael.

Step 1. Describe general adaptive functioning.

Step 1 requires the examiner to obtain the Adaptive Behavior Composite standard score and confidence interval. The examiner may also choose to report the associated percentile rank, adaptive level, and stanine.

As a global measure of adaptive functioning, the Adaptive Behavior Composite standard score may be used in conjunction with an estimate of intellectual functioning to decide whether an individual should be classified with mental retardation, or qualifies for Social Security Disability Insurance or other special program. The Adaptive Behavior Composite is based on all of the items in every domain, and so it is statistically the most dependable estimate of adaptive functioning.

Step 2. Describe performance in the adaptive behavior domains.

As with the Adaptive Behavior Composite, examiners should report the domain standard scores and their confidence intervals. Again, examiners may choose to report the associated percentile ranks, adaptive levels, and stanines.

Step 3. Describe performance in the subdomains.

Report the subdomain *v*-scale scores, confidence intervals, adaptive levels and, if appropriate, age equivalents.

Step 4. Interpret the pattern of domain standard scores to identify strengths and weaknesses.

The Adaptive Behavior Composite has the limitation of any overall summary score, namely that it can mask quite different levels of adaptive functioning in the domains. Therefore, it is important to investigate the pattern of performance in the domains on the Survey Interview Form and the Parent/Caregiver Rating Form.

Three methods of evaluating the pattern of domain standard scores are described in this section. The first, which is recommended for routine use, is to identify domain scores that are substantially higher or lower than the individual's own average domain score. For ease of computation, the average is defined as the *median* domain standard score, that is, the score that is in the middle if the domain scores are put in order from lowest to highest. (See Chapter 3 for instructions on how to determine the median score.)

Another benefit of using the median is that the median is less influenced than the mean by unusual scores. With only three or four scores contributing to the computation, unusual scores can have a substantial effect on interpretation. For example, if the *v*-scale scores for the three Socialization subdomains were 12, 13, and 19, the median would be 13 and the mean would be 15. Typical performance for this individual in this domain is best described by the two lower scores, with 19 representing an unusually high score. In the evaluation of strengths and weaknesses using the median, the subdomain with the score of 19 would represent a strength and the other two subdomains would neither be characterized as a strength nor weakness. On the other hand, if the mean were used as a measure of typical performance, then the two lower scores would be characterized as weaknesses. That characterization would contradict what appears to be a typical score for that individual.

When comparing each domain standard score with the median, a difference of 10 points or more is considered to indicate a personal strength or weakness. On the standard score scale, 10 points equals two-thirds of a standard deviation, a difference that is generally considered moderate (Cohen, 1969).

In addition to being computationally easy and robust to the effects of outliers, comparing each domain standard score with the individual's median score is a compact, efficient way of summarizing the important points in an individual's domain-score profile. However, a second method of evaluating the pattern of domain scores may also be useful, which is to compare particular pairs of domain scores (*pairwise comparisons*). The differences between pairs of standard scores may be evaluated both for statistical significance and for infrequency in the general-population norm sample, using Tables D.1 and D.2 in Appendix D.

A third method of evaluating the pattern of domain scores, which is to determine the range of domain standard scores, may be a useful check of how accurately the Adaptive Behavior Composite represents the individual's overall level of functioning. If the difference between the highest domain standard score and the lowest is greater than 35, the Adaptive Behavior Composite should not be considered a meaningful representation of the overall level of functioning.

Step 4a. Evaluate the pattern of subdomain v-scale scores to identify strengths and weaknesses.

Subdomain performance may be analyzed in two ways, analogous to those used to evaluate the pattern of domain scores. First, within each domain, compare each subdomain's *v*-scale score with the median *v*-scale score for that domain. A difference of 2 points or greater, corresponding to two-thirds of a standard deviation or more, is considered meaningful. Secondly, the user may make pairwise comparisons between subdomains and evaluate the statistical significance and unusualness of these differences, using Tables D.3 and D.4 in Appendix D.

Step 5. Generate hypotheses about profile fluctuations.

The most important information yielded by the Survey Interview Form or the Parent/Caregiver Rating Form is the empirical results. With the application of clinical skills, knowledge of normal and deviant behaviors across the developmental spectrum, and simple logic, however, the user of either form can generate hypotheses about profile fluctuation. These hypotheses require additional support from clinical observations of behavior as well as the results from other instruments.

Hypotheses can be generated in two ways:

- Review subdomain performance to generate hypotheses about the reasons for significant domain differences. For example, suppose the Socialization Domain, with a standard score of 85, is found to be a weakness compared with the individual's average level of functioning. If the *v*-scale score for the Interpersonal Relationships Subdomain is 18 to 20 (in the Moderately High adaptive level range), the Play and Leisure Time *v*-scale score is 13 to 17 (in the Adequate adaptive level range), and the Coping Skills *v*-scale score is 10 to 12 (in the Moderately Low adaptive level), the user can hypothesize that the individual's performance in Coping Skills is a major contributor to his or her weakness in the Socialization Domain.
- Review the items according to their content. Determine the content categories (see Table 2.1) in which the individual is or is not performing activities, and generate hypotheses about areas in which the individual's performance is superior, average, or deficient. Be careful when interpreting item performance; the number of items in each content category is small, which limits analysis of relative importance. Performance within a content category should be investigated only to generate hypotheses about why the individual obtained a particular result. All hypotheses suggested by items of the Survey Interview Form or the Parent/Caregiver Rating Form must be supported by administration of the Expanded Interview Form, additional observations of behavior, or results from other tests or assessments.

Step 6. Describe maladaptive behavior.

If the optional Maladaptive Behavior Domain was administered, report the *v*-scale scores and confidence intervals for the Maladaptive Behavior Index and the Internalizing and Externalizing subscales. Report the maladaptive levels, if appropriate. If the optional Maladaptive Critical Items section was administered, note the number of items scored 2 or 1, the severity rating, and review the item content.

Example 1: Interpretation of Results for Tasha

Tasha, a third-grade student aged 8 years 4 months, was referred for evaluation because she was having difficulty getting along with her classmates and teachers and sometimes exhibited defiant classroom behavior. Her mother was interviewed for the Vineland–II Survey Interview Form. **Figure 4.1** shows the Score Summary for Tasha's performance.

Figure 4.1 Score Summary for Example 1: Tasha

Individual: Tasha Date: _____ Age: 8:4 Form: X Survey Interview ____ Parent/Caregiver Rating

VINELAND–II SCORE SUMMARY

SUBDOMAIN and DOMAIN SCORES

SUBDOMAIN/ DOMAIN	Raw Score	v-Scale Score	Standard Score	90 % Conf. Interval	%ile Rank	Adaptive Level	Age Equivalent	Stanine	Score Minus Median*	S(trength) or W(eakness)
Receptive	38	16		± 2 14-18		Adequate	9:6		1	
Expressive	103	15		± 2 13-17		Adequate	8:4		0	
Written	32	14		± 2 12-16		Adequate	8:0		-1	
Communication	Sum: 45		100	± 7 93-107	50	Adequate		5	17	S
Personal	66	13		± 2 11-15		Adequate	6:6		0	
Domestic	10	11		± 2 9-13		Moderately Low	3:11		-2	W
Community	46	13		± 2 11-15		Adequate	7:6		0	
Daily Living Skills	Sum: 37		83	± 7 76-90	13	Moderately Low		3	0	
Interpersonal Relationships	30	8		± 2 6-10		Low	1:7		-2	W
Play and Leisure Time	35	10		± 2 8-12		Moderately Low	3:11		0	
Coping Skills	20	11		± 2 9-13		Moderately Low	3:5		1	
Socialization	Sum: 29		71	± 6 65-77	3	Moderately Low		1	-12	W
Gross				±						
Fine				±						
Motor Skills	Sum:			±						

Sum of Domain Standard Scores = 254

Adaptive Behavior Composite 83 ± 4 79-87 | 13 | Moderately Low | 3

	Raw Score	v-Scale Score	% Conf. Interval	Level
Maladaptive Behavior Index	24	20	± 1	Elevated
Internalizing	6	19	± 2	Elevated
Externalizing	11	20	± 2	Elevated

Maladaptive Behavior Critical Items

Items (Circle all items scored 2 or 1, and indicate the severity.)

1 S M 2 S M 3 S M (4) S M 5 S M 6 S M 7 S M 8 S M (9) S M 10 S M 11 S M 12 S M 13 S M 14 S M

STRENGTHS and WEAKNESSES

* *For instructions on how to determine the median score, see Chapter 3 of the Vineland–II Survey Forms Manual.*

Domain Strengths/ Weaknesses:
S = Standard Score − Median ≥ 10
W = Standard Score − Median ≤ −10

Subdomain Strengths/ Weaknesses:
S = v-Scale Score − Median ≥ 2
W = v-Scale Score − Median ≤ −2

Step 1. Describe general adaptive functioning.

Tasha's Adaptive Behavior Composite standard score of 83 summarizes her overall level of adaptive functioning. The 90 percent confidence level shows that the chances are good (90 percent) that Tasha's true Adaptive Behavior Composite is within the range of 79 to 87. Her Adaptive Behavior Composite classifies her general adaptive functioning as Moderately Low; she scores higher than 13 percent of other 8-year-olds.

Step 2. Describe performance in the adaptive behavior domains.

Tasha's standard scores in the adaptive behavior domains, along with the bands of error at the 90 percent level of confidence, are as follows: Communication, 100 ± 7 (93–107); Daily Living Skills, 83 ± 7 (76–90); and Socialization, 71 ± 6 (65–77). Her score in the Communication Domain corresponds to a percentile rank of 50 and is at the Adequate adaptive level. Her Daily Living Skills and Socialization scores, which correspond to percentile ranks of 13 and 3, respectively, are classified as Moderately Low when compared with other children the same age.

Step 3. Describe performance in the subdomains.

Tasha's *v*-scale scores in the subdomains, along with the bands of error at the 90 percent level of confidence, are as follows: Receptive, 16 ± 2 (14–18); Expressive, 15 ± 2 (13–17); Written, 14 ± 2 (12–16); Personal, 13 ± 2 (11–15); Domestic, 11 ± 2 (9–13); Community, 13 ± 2 (11–15); Interpersonal Relationships, 8 ± 2 (6–10); Play and Leisure Time, 10 ± 2 (8–12); and Coping Skills, 11 ± 2 (9–13). Her subdomain *v*-scale scores in the Communication Domain are at the Adequate adaptive level, with age equivalents of 9:6, 8:4, and 8:0. Her subdomain *v*-scale scores in the Daily Living Skills Domain are at the Adequate (Personal), Moderately Low (Domestic), and Adequate (Community) adaptive levels, with age equivalents of 6:6, 3:11, and 7:6. Her subdomain *v*-scale scores in the Socialization Domain are at the Low (Interpersonal Relationships) and Moderately Low (Play and Leisure Time and Coping Skills) adaptive levels, with age equivalents of 1:7, 3:11, and 3:5.

Step 4. Interpret the pattern of domain standard scores to identify strengths and weaknesses.

Tasha's adaptive functioning in the area of Communication (standard score of 100) represents a personal strength because it is more than 10 points higher than her median standard score of 83. In contrast, her adaptive functioning in the area of Socialization (standard score of 71) represents a personal weakness because it is more than 10 points lower than her median domain standard. (See **Figure 4.1.**) Tasha's domain score in Daily Living Skills is the median score, so it is neither a relative strength nor a weakness.

When evaluating pairwise comparisons, the 29-point difference between Tasha's Communication standard score of 100 and her Socialization standard score of 71 is both statistically significant at the .01 level and unusual; the difference falls in the extreme 5 percent for her age group in the national norm sample. The 17-point difference between her Communication standard score and her Daily Living Skills standard score of 83 is both statistically significant at the .01 level and unusual; the difference falls in the extreme 10 percent for her age group in the national norm sample. (See **Figure 4.2.**)

Figure 4.2 Pairwise Comparisons for Example 1: Tasha

VINELAND–II PAIRWISE COMPARISONS

Domain Comparisons	Standard Score	<, >, or =	Standard Score		Standard Score Difference	Stat. Sign. Level (.05 or .01)	Freq. of Difference (Extreme 16, 10, 5, or 1%)
Communication	100	>	83	Daily Living Skills	17	✓	10
Communication	100	>	71	Socialization	29	✓	5
Daily Living Skills	83	>	71	Socialization	12		
Communication				Motor Skills			
Socialization				Motor Skills			
Daily Living Skills				Motor Skills			

Subdomain Comparisons	*v*-Scale Score	<, >, or =	*v*-Scale Score		*v*-Scale Score Difference	Stat. Sign. Level (.05 or .01)	Freq. of Difference (Extreme 16, 10, 5, or 1%)
Communication							
Receptive	16	>	15	Expressive	1		
Receptive	16	>	14	Written	2		
Expressive	15	>	14	Written	1		
Daily Living Skills							
Personal	13	>	11	Domestic	2		
Personal	13	=	13	Community	0		
Domestic	11	<	13	Community	2		
Socialization							
Interpersonal Relationships	8	<	10	Play and Leisure Time	2		
Interpersonal Relationships	8	<	11	Coping Skills	3	✓	10
Play and Leisure Time	10	<	11	Coping Skills	2		
Motor Skills							
Gross				Fine			

Selected Across-Domain Subdomain Comparisons	*v*-Scale Score	<, >, or =	*v*-Scale Score		*v*-Scale Score Difference	Stat. Sign. Level (.05 or .01)	Freq. of Difference (Extreme 16, 10, 5, or 1%)
Expressive	15	>	8	Interpersonal Relationships	7	✓	1%
Expressive	15	>	11	Coping Skills	4		
Fine				Written			
Fine				Domestic			
Fine				Personal			

Note that in Tasha's case, the first method of evaluating domain standard scores, which identified her significant weakness in Socialization, provided the most concise information about her domain fluctuations. The second method, evaluating pairwise comparisons, indicated that such a high Communication score compared to both the Socialization and Daily Living Skills scores occurs in the norm sample somewhat infrequently (5 percent and 10 percent, respectively). The third method, determining the range, supplied no new information. The range of 29 falls within the 35-point range suggested for regarding the Adaptive Behavior Composite as a meaningful description of Tasha's overall adaptive functioning.

When evaluating the pattern of domain standard scores, do not flood a case report with descriptions of results from multiple methods unless the additional methods provide new information or there is a special need for the results.

Step 4a. Evaluate the pattern of subdomain v-scale scores to identify strengths and weaknesses.

When looking at the subdomains within the Socialization Domain, the domain that is a personal weakness for Tasha, one sees that her performance in the Interpersonal Relationships Subdomain (*v*-scale score of 8) represents a personal weakness because it is 2 points lower than her median *v*-scale score of 10. Her *v*-scale scores in the Play and Leisure Time and Coping Skills Subdomains are classified as Moderately Low (*v*-scale scores of 10 and 11, respectively) when compared with other children the same age. Tasha also obtained an adaptive level of Moderately Low (*v*-scale score of 11, age equivalent of 3:11) in the Domestic Subdomain. Tasha's performance in all of the Communication subdomains is in the Adequate range.

When evaluating commonly made comparisons between subdomains belonging to different domains (e.g., the Expressive Subdomain from the Communication Domain and Interpersonal Relationships from the Socialization Domain), the 7-point difference between her Expressive *v*-scale score of 15 and Interpersonal Relationships *v*-scale score of 8 is statistically significant at the .01 level and is unusual. The difference falls within the extreme 1 percent for her age group in the national norm sample. The 4-point difference between her Expressive *v*-scale score and her Coping Skills *v*-scale score of 11 is not statistically significant at the .01 level.

Step 5. Generate hypotheses about profile fluctuations.

A clinician could generate several hypotheses about Tasha's performance on the Survey Interview Form. First, her performance in the Interpersonal Relationships Subdomain appears to be the major contributor to her weakness in the Socialization Domain, although she also has a Moderately Low level of performance in both the Play and Leisure Time Subdomain and the Coping Skills Subdomain. The next logical step would be to examine Tasha's performance on the items of Interpersonal Relationships, as well as on those in Play and Leisure Time and Coping Skills. All hypotheses generated by her performance on items in the Socialization Domain must be supported by additional observations of behavior, or results from other tests or assessments.

Step 6. Describe maladaptive behavior.

A review of the *v*-scale scores in the Maladaptive Behavior Domain confirms a pattern of behavior that corroborates Tasha's referral for difficulty getting along with her classmates and teacher. Her *v*-scale scores of 19, 20, and 20 for Internalizing, Externalizing, and the Maladaptive Behavior Index all fall within the Elevated level. Test items in this domain scored 2 or 1 should be reviewed to determine the need for follow-up evaluations and observations.

Conclusions

While Tasha's overall adaptive functioning is in the Moderately Low range, the Survey Interview Form results show a weakness in Socialization in comparison with her own average level of functioning. More information about her weakness in Socialization is needed, particularly information about her ability to form peer relationships and get along with others. Such information will provide support for the hypothesis that her performance in the Interpersonal Relationships Subdomain is a major contributor to her Socialization weakness. In addition, further evaluation is suggested in the area of Daily Living Skills. Finally, if Tasha's maladaptive behavior continues at the same level or increases into the Clinically Significant level, consideration should be given for referral to a clinical psychologist or a child psychiatrist.

Example 2: Interpretation of Results for Michael

Michael, a sixth grade student aged 11 years 4 months, was referred for evaluation because of low academic performance and defiant classroom behavior. His mother completed the Vineland–II Parent/Caregiver Rating Form. **Figure 4.3** shows the Score Summary for Michael's performance.

Figure 4.3 Score Summary for Example 2: Michael

Individual: Michael Date: _____ Age: 11:4 Form: ___ Survey Interview X Parent/Caregiver Rating

VINELAND–II SCORE SUMMARY

SUBDOMAIN and DOMAIN SCORES

SUBDOMAIN/ DOMAIN	Raw Score	v-Scale Score	Standard Score	90 % Conf. Interval	%ile Rank	Adaptive Level	Age Equivalent	Stanine
Receptive	28	9		7-11 ± 2		Low	2:11	
Expressive	84	9		7-11 ± 2		Low	4:4	
Written	29	10		8-12 ± 2		Moderately Low	8:1	
Communication	Sum: 28	69		61-77 ± 8	2	Low		1
Personal	68	11		8-14 ± 3		Moderately Low	7:5	
Domestic	19	10		8-12 ± 2		Moderately Low	7:0	
Community	26	7		5-9 ± 2		Low	5:4	
Daily Living Skills	Sum: 28	68		60-76 ± 8	2	Low		1
Interpersonal Relationships	46	8		6-10 ± 2		Low	3:7	
Play and Leisure Time	47	10		7-13 ± 3		Moderately Low	6:7	
Coping Skills	23	9		7-11 ± 2		Low	3:11	
Socialization	Sum: 27	68		60-76 ± 8	2	Low		1
Gross				±				
Fine				±				
Motor Skills	Sum: ___			±				

STRENGTHS and WEAKNESSES	
Score Minus *Median**	S(trength) or W(eakness)
0	
0	
1	
1	
1	
0	
-3	W
1	
1	
0	

Sum of Domain Standard Scores = 205

Adaptive Behavior Composite 67 | 61-73 ± 6 | 1 | Low | | 1

	Raw Score	v-Scale Score	___% Conf. Interval	Level
Maladaptive Behavior Index	9	18	16-18 ± 1	Average
Internalizing	3	18	16-20 ± 2	Elevated
Externalizing	4	19	17-21 ± 2	Elevated

Maladaptive Behavior Critical Items

Items (Circle all items scored 2 or 1, and indicate the severity.)

1 S M 2 S M 3 S M 4 S M 5 S M 6 S M 7 S M 8 S M 9 S M 10 S M 11 S M 12 S M 13 S M 14 S M

** For instructions on how to determine the median score, see Chapter 3 of the Vineland-II Survey Forms Manual.*

Domain Strengths/ Weaknesses:
S = Standard Score − Median ≥ 10
W = Standard Score − Median ≤ −10

Subdomain Strengths/ Weaknesses:
S = v-Scale Score − Median ≥ 2
W = v-Scale Score − Median ≤ −2

Step 1. Describe general adaptive functioning.

Michael's Adaptive Behavior Composite standard score of 67 summarizes his overall level of adaptive functioning. The 90 percent confidence level shows that the chances are good (90 percent) that Michael's true Adaptive Behavior Composite is within the range of 61 to 73. His Adaptive Behavior Composite classifies his general adaptive functioning as Low; he scores higher than 1 percent of other 11-year-olds.

Step 2. Describe performance in the adaptive behavior domains.

Michael's standard scores in the adaptive behavior domains, along with the bands of error at the 90 percent level of confidence, are as follows: Communication, 69 ± 8 (61–77); Daily Living Skills, 68 ± 8 (60–76); and Socialization, 68 ± 8 (60–76). His scores in the Communication, Daily Living Skills, and Socialization Domains each correspond to a percentile rank of 2, and are each classified in the Low adaptive level when compared with other children the same age.

Step 3. Describe performance in the subdomains.

Michael's *v*-scale scores in the subdomains, along with the bands of error at the 90 percent level of confidence, are as follows: Receptive, 9 ± 2 (7–11); Expressive, 9 ± 2 (7–11); Written, 10 ± 2 (8–12); Personal, 11 ± 3 (8–14); Domestic, 10 ± 2 (8–12); Community, 7 ± 2 (5–9); Interpersonal Relationships, 8 ± 2 (6–10); Play and Leisure Time, 10 ± 3 (7–13); and Coping Skills, 9 ± 2 (7–11). His subdomain *v*-scale scores in the Communication Domain are at the Low (Receptive and Expressive) and Moderately Low (Written) adaptive levels, with age equivalents of 2:11, 4:4, and 8:1. His subdomain *v*-scale scores in the Daily Living Skills Domain are at the Moderately Low (Personal and Domestic) and Low (Community) adaptive levels, with age equivalents of 7:5, 7:0, and 5:4. His subdomain *v*-scale scores in the Socialization Domain are at the Low (Interpersonal Relationships and Coping Skills) and Moderately Low (Play and Leisure Time) adaptive levels, with age equivalents of 3:7, 6:7, and 3:11.

Step 4. Interpret the pattern of domain standard scores to identify strengths and weaknesses.

Michael's domain standard scores do not suggest a personal strength or weakness in any area because all domain scores are within 10 points of each other (Communication, standard score of 69; Daily Living Skills, standard score of 68; and Socialization, standard score of 68). His adaptive functioning in each domain is classified as Low. The evaluation of pairwise comparisons provides no new information. All domain pairwise comparisons are nonsignificant.

Step 4a. Evaluate the pattern of subdomain v-scale scores to identify strengths and weaknesses.

When looking at the subdomains within the Daily Living Skills Domain, one sees that Michael's performance in the Community Subdomain (*v*-scale score of 7) represents a personal weakness because it is 3 points lower than his median *v*-scale score of 10. This score is classified as Low, whereas his *v*-scale scores in the Personal and Domestic Subdomains are classified as Moderately Low.

Figure 4.4 Pairwise Comparisons for Example 2: Michael

VINELAND–II PAIRWISE COMPARISONS

Domain Comparisons	Standard Score	<, >, or =	Standard Score		Standard Score Difference	Stat. Sign. Level (.05 or .01)	Freq. of Difference (Extreme 16, 10, 5, or 1%)
Communication	69	<	68	Daily Living Skills	1		
Communication	69	<	68	Socialization	1		
Daily Living Skills	68	=	68	Socialization	0		
Communication	69		—	Motor Skills			
Socialization	68		—	Motor Skills			
Daily Living Skills	68		—	Motor Skills			

Subdomain Comparisons	*v*-Scale Score	<, >, or =	*v*-Scale Score		*v*-Scale Score Difference	Stat. Sign. Level (.05 or .01)	Freq. of Difference (Extreme 16, 10, 5, or 1%)
Communication							
Receptive	9	=	9	Expressive	0		
Receptive	9	<	10	Written	1		
Expressive	9	<	10	Written	1		
Daily Living Skills							
Personal	11	>	10	Domestic	1		
Personal	11	>	7	Community	4		
Domestic	10	>	7	Community	3		
Socialization							
Interpersonal Relationships	8	<	10	Play and Leisure Time	2		
Interpersonal Relationships	8	<	9	Coping Skills	1		
Play and Leisure Time	10	>	9	Coping Skills	1		
Motor Skills							
Gross				Fine			

Selected Across-Domain Subdomain Comparisons	*v*-Scale Score	<, >, or =	*v*-Scale Score		*v*-Scale Score Difference	Stat. Sign. Level (.05 or .01)	Freq. of Difference (Extreme 16, 10, 5, or 1%)
Expressive	9	>	8	Interpersonal Relationships	1		
Expressive	9	=	9	Coping Skills	0		
Fine				Written			
Fine				Domestic			
Fine				Personal			

Michael's *v*-scale scores in the Communication Domain are classified as Low or Moderately Low, as is his *v*-scale score in the Play and Leisure Time Subdomain. However, his *v*-scale score of 8 in Interpersonal Relationships is classified as Low, although the score does not represent a personal weakness because it is not 2 or more points lower than his median *v*-scale score of 9. When evaluating comparisons between subdomains belonging to the same domain, the 4-point difference between Michael's Personal *v*-scale score of 11 and his Community *v*-scale score of 7 is not statistically significant. (See **Figure 4.4.**).

Step 5. Generate hypotheses about profile fluctuations.

A clinician could generate several hypotheses from Michael's mother's ratings of his performance on the Parent/Caregiver Rating Form. Michael's profile of scores show significant generalized deficits in multiple areas of adaptive behavior. This pattern of adaptive functioning, i.e., generalized deficits, or a flat profile, is consistent with the typical profile for a group with mental retardation. In addition, his Adaptive Behavior Composite and his domain standard scores are all at least two standard deviations from the mean of the norm population, and more than meet the requirements for a diagnosis of mental retardation. An examination of Michael's item scores in the Community Subdomain could provide additional information about his personal weakness in this subdomain.

Step 6. Describe maladaptive behavior.

A review of Michael's *v*-scale scores in the Maladaptive Behavior Domain confirms a pattern of behavior that corroborates Michael's referral for defiant classroom behavior. His *v*-scale scores of 18, 19, and 18, for Internalizing, Externalizing, and the Maladaptive Behavior Index all fall within the Elevated level, with his Externalizing score the highest. Test items in this subscale scored 2 or 1 should be reviewed to determine the need for follow-up evaluations and observations.

Conclusions

While Michael's overall adaptive functioning is classified as Low, and his profile of scores show significant generalized deficits in multiple areas, the Parent/Caregiver Rating Form results show a personal weakness in the Community Subdomain. This finding is not surprising given that individual's with mental retardation often have trouble with behaviors and skills such as telling time, counting money, and moving about the community independently. The items in this subdomain can be used to target supports to improve Michael's functioning in this area. If Michael's maladaptive behavior continues at the same level or increases into the Clinically Significant level, consideration should be given for referral to a clinical psychologist or a child psychiatrist.

Using the Survey Interview Form or Parent/Caregiver Rating Form with the Vineland–II Teacher Rating Form

The use of the Survey Interview Form or the Parent/Caregiver Rating Form with the Vineland–II Teacher Rating Form provides information about an individual's adaptive behavior in two different settings (home and school), from the point of view of two different respondents. Because the standardization sample for the Survey Interview Form and Parent/Caregiver Rating Form overlaps the standardization sample for the Teacher Rating Form, direct comparisons can be made between the scores.

Completing the Report to Parents

Two forms, the Report to Parents and the Report to Caregivers, are available to help communicate results to parents or other caregivers. This report contains:

- a definition of adaptive behavior and the reason for administering an assessment of adaptive behavior
- a nontechnical explanation of percentile ranks and adaptive levels (It is important to note that the terms Above Average, Average, and Below Average, which are commonly understood by parents and others, are used in the reports in place of the more clinical terminology Moderately High, Adequate, and Moderately Low.)
- maladaptive results
- a general summary of results and recommendations

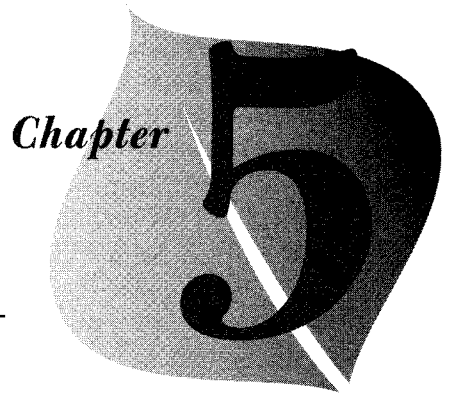
Figure 4.5 shows the summary of adaptive behavior domain performance and subdomain performance from the Report to Parents. Scores for Tasha, discussed earlier (Figure 4.1), are summarized in Figure 4.5. The user records the percentile rank for each of the adaptive behavior domains, and places a check mark indicating the adaptive level of each subdomain.

Figure 4.5 Profile chart from the Report to Parents completed for Tasha, aged 8 years 4 months. (See also Figure 4.1.)

Summary of Vineland–II Results

	Percentile Rank	Low (2nd %ile)	Below Average (3rd–17th %ile)	Average (18th–83rd %ile)	Above Average (84th–97th %ile)	High (98th %ile)
Communication	50			✔		
Listening and Understanding				✔		
Talking				✔		
Reading and Writing				✔		
Daily Living	13		✔			
Caring for Self				✔		
Caring for Home			✔			
Living in the Community				✔		
Social Skills and Relationships	3		✔			
Relating to Others		✔				
Playing and Using Leisure Time			✔			
Adapting		✔				
Physical Activity						
Using Large Muscles						
Using Small Muscles						

Examining Vineland–II Profiles



In addition to evaluating scores on the Survey Interview Form or Parent/Caregiver Rating Form to determine an individual's overall level of adaptive functioning and identify strengths and weaknesses, as outlined in Chapter 4, an examiner conducting a psychological assessment can go a step further in interpreting Vineland–II results by comparing the individual's level and pattern of performance to that of individuals in particular diagnostic groups. Since 1984, the *Vineland Adaptive Behavior Scales* (Vineland ABS) have been used in more than 1,000 studies to investigate the effects on everyday functioning of a broad range of disorders or disabilities, including attention-deficit/hyperactivity disorder, autism spectrum disorders, blindness, cerebral palsy, closed head injury, Down syndrome, emotional disturbance, hearing impairment, hydrocephalus, learning disabilities, low birth weight, mental retardation, and physical disabilities. In addition, score profiles on the Vineland–II Survey forms for eight clinical groups are presented and discussed in Chapter 8.

The information gleaned from these studies suggests that general profiles of strengths and weaknesses on the Vineland ABS and Vineland–II can differentiate between individuals with different diagnostic classifications, as well as between a typically developing individual and one with a specific clinical diagnosis. This chapter describes Vineland profiles for seven clinical groups, and compares the features of prototypical score profiles of individuals in selected pairs of diagnostic categories. For some of these pairs, differential diagnosis may be relatively challenging. For other pairs, comparison provides greater understanding of the adaptive deficiencies associated with a diagnostic classification. This chapter also cites some of the studies on which these comparisons are based. Each comparison assumes that the individuals being compared have the same level of general intelligence (e.g., approximately the same overall composite score from a cognitive ability battery).

Clinicians need to be cautious when evaluating profiles because an individual with a specific diagnosis may not exhibit the profile that is typical for that diagnostic group. Multiple sources of data must always be included when using test score profiles in the diagnostic process.

Profile Comparison 1: High Functioning Autism and Asperger Syndrome

Individuals with autism are characterized by pervasive impairment in reciprocal social interaction skills and communication skills. In addition, these individuals exhibit stereotyped, perseverative, and ritualistic behaviors (*DSM–IV–TR*, 2000; World Health Organization, 1993). The *DSM–IV–TR* (2000) criteria for the diagnosis of Autistic Disorder include:

- Impairment in social interaction, such as impaired use of nonverbal behaviors to regulate social interaction and communication, failure to develop peer relationships, and lack of social reciprocity
- Impairments in communication, such as delay in or total lack of development of spoken language, difficulty initiating or sustaining conversations, and lack of varied, spontaneous imitative play
- Restricted, repetitive, or stereotypical patterns of behavior or interests
- Delays or abnormal functioning with onset prior to three years in at least one of these areas: social interaction, language as used in social communication, or symbolic or imaginative play
- The disturbance is not better accounted for by Rett's Disorder or Childhood Disintegrative Disorder

Autism covers a broad range of disability levels, from severe to comparatively mild impairment. Communication deficits range from complete lack of

functional speech to fully comprehensible speech that is odd only in its lack of social awareness, pitch, volume, rhythm, or rate. While socialization deficits can vary from complete lack of interest in all people (except perhaps caregivers) to strong family attachments and an appreciation for particular people, a notable lack of ability to recognize and navigate the nuances of social interaction is an essential hallmark of autism spectrum disorders. Characteristic deviant behaviors may include circumscribed interests (e.g., train schedules, maps) that are abnormal in their intensity or focus; a marked desire for sameness and resistance to altering of routines; stereotyped, repetitive habits (e.g., hand flapping, finger flicking); and preoccupation with parts of objects (e.g., the wheels of a toy car rather than the car as a whole).

Thus, there is wide variability in what an individual with autism "looks like." The diagnostic category includes those with Kanner's classic autism; very low functioning nonverbal individuals; very high functioning, gainfully employed individuals; and those who embody myriad other expressions of the syndrome. Nevertheless, certain features in the profile of Vineland ABS and Vineland–II scores are characteristic of those with autism:

- Low score in the Socialization Domain, relative to other domains
- Significant score discrepancies across various subdomains, i.e. significant scatter in adaptive abilities
- Low scores in the Expressive, Interpersonal Relationships, Play and Leisure Time, and Coping Skills Subdomains, relative to other subdomains

The deficits in communication and social interaction that are characteristic of autism spectrum disorders were demonstrated in the Vineland–II score profiles of individuals with autism who were part of a clinical study undertaken during standardization (see Chapter 8). In this study, the profile for the group with autism showed a mean Adaptive Behavior Composite score more than two standard deviations below the nonclinical group mean score. These individuals scored lower in the Socialization Domain (mean standard score of 64.4) than in the Communication or Daily Living Skills Domains, although each of the latter two also had an average score below 69. Among the subdomains, their lowest average scores were in Expressive, Interpersonal Relationships, and Play and Leisure Time.

The diversity of test score profiles of those with autism contributes to misconceptions and to inaccuracies in diagnosis. One particular disorder that has frequently been misdiagnosed as autism is Asperger syndrome.

One of the autism spectrum disorders, Asperger syndrome, like high-functioning autism (HFA), is characterized by severe and pervasive impairments in social interaction skills, communication skills, or the presence of restricted, repetitive patterns of behavior, interests, and activities. The *DSM–IV–TR* (2000) criteria for the diagnosis of Asperger's Disorder include:

- Impairment in social interaction, such as impaired use of nonverbal behaviors to regulate social interaction and communication, failure to develop peer relationships, and lack of social reciprocity
- Restricted, repetitive, or stereotypical patterns of behavior or interests
- There is often no clinically significant delays or deviance in language acquisition and communication skills
- There is no clinically significant delay in cognitive functioning
- Criteria are not met for another Pervasive Developmental Disorder

Asperger syndrome has been the most controversial of the autism spectrum disorders. Before its inclusion in the *DSM–IV–TR*, the diagnostic category was used in very different ways: 1) synonymously with "high-functioning autism," 2) in reference to adults with autism, 3) in reference to individuals with "subthreshold" pervasive developmental disorder not otherwise specified (PDD–NOS), and 4) in reference to a syndrome that differs from autism in important ways (Vokmar et al., 1996). Although Asperger syndrome is now generally accepted as a syndrome different from HFA, it continues to be misdiagnosed as HFA because both groups are associated with higher levels of functioning within the autism spectrum. However, published research suggests that general profiles of strengths and weaknesses on measures of intelligence and the Vineland ABS can differentiate between these disorders.

When the cognitive and adaptive functioning of individuals with Asperger syndrome is compared with that of individuals with HFA who have approximately the same global intelligence level, the profiles reveal several distinguishing features. Although the individuals in both groups obtain similar scores in the Daily Living Skills Domain and in the Socialization Domain (lowest score for both groups), individuals with Asperger syndrome tend to have:

- Higher verbal ability
- Lower nonverbal ability

- Higher Communication Domain scores
- Lower Motor Skills Domain scores

Thus, while both groups would have difficulty with Vineland–II items such as "modulates tone of voice," individuals with Asperger syndrome would probably be more likely than individuals with HFA to "have conversations that last 10 minutes." Conversely, individuals with Asperger syndrome would exhibit more difficulty with both Gross and Fine Motor Skills items, such as "runs smoothly, with changes in speed and direction" or "cuts out complex shapes."

Additional evidence of adaptive difficulties that are consistent with either Asperger syndrome or HFA could be documented by using the Vineland–II Teacher Rating Scale. Other assessment instruments such as the *Childhood Autism Rating Scale* (CARS) (Schopler, Reichler, & Renner, 1998), the *Autism Diagnostic Interview-Revised* (ADI-R) (Rutter, LeCouteur, & Lord, 1994), the *Autism Diagnostic Observation Schedule* (ADOS) (Lord et al., 1989) and the *Asperger Syndrome Diagnostic Scale* (ASDS) (Miles, Bock, & Simpson, 2000) should also be considered for inclusion in the battery of diagnostic measures when establishing a diagnosis of HFA or Asperger Syndrome.

Profile Comparison 2: Autism and Mental Retardation

Along with the core deficits in communication and social interaction summarized above, seventy percent of individuals with autism also have mental retardation (Volkmar & Wiesner, 2004). This means that up to thirty percent of children and adults with autism have intelligence above the retarded range, with many in the normal range, and some demonstrating cognitive functioning in the above average or even gifted range. However, because of the prevalence of mental retardation among those with autism, it becomes very important to accurately distinguish between a diagnosis of autism (with or without mental retardation) and a diagnosis of mental retardation alone. Differentiating these groups is particularly important for educational and vocational planning, as well as for life skills planning and support.

When attempting to determine whether an individual is better described with a diagnosis of mental retardation, a diagnosis of autism, or a diagnosis of both autism and mental retardation, it is helpful to keep in mind that a relatively flat Vineland profile is typical for individuals who have mental retardation but not autism (Carter et al., 1998). Thus, individuals with mental retardation are usually affected fairly evenly across skill areas as measured by the Vineland. Their profile differs greatly from the typical Vineland profile of an individual with autism, in that there is often such a notable comparative deficit in socialization, that this deficit alone is a powerful predictor of diagnosis (Gillham et al., 2000).

The relatively flat Vineland profile typical for individuals with mental retardation was demonstrated in the Vineland–II clinical group data reported in Chapter 8. This profile shows significant generalized deficits in multiple areas of adaptive behavior. Samples of children and adults with mild, moderate, and severe/profound mental retardation showed significant deficits in overall adaptive behavior functioning as measured by the mean Adaptive Behavior Composite and mean domain standard scores. All of these deficits were more than two standard deviations below that observed in the nonclinical reference group. This pattern is consistent with the requirement for diagnosis of mental retardation of a score that is at least two standard deviations below the mean of the norm population in at least one domain or on the overall composite score (AAMR, 2002, p. 76).

As with HFA and Asperger syndrome, published research suggests that general profiles of strengths and weaknesses on the Vineland ABS can differentiate between autism, with or without mental retardation, and mental retardation alone (Volkmar et al., 1987). While individuals with autism (with or without mental retardation) and mental retardation perform at a similar level in the Daily Living Skills Domain, aspects of their adaptive behavior score profiles that tend to be different, assuming that the hypothetical individuals being compared are at the same level of general intellectual ability, include the following (Paul et al., 2004):

- Higher Communication Domain scores for individual with mental retardation alone
- Higher Socialization Domain scores for individuals with mental retardation alone
- Lower Motor Skills Domain scores for individuals with mental retardation alone

Children with the combination of autism and mental retardation are more likely to show delays in Vineland–II behaviors requiring communication or social interaction skills, such as "stays on topic in conversations" and "shows interest in children the same age" than would their peers functioning at the same overall cognitive level. In contrast, children with both autism and mental retardation often exhibit higher standard scores on the Motor Skills Domain than do children with mental retardation only. These comparisons apply to all levels

of mental retardation, although individuals with mild and moderate mental retardation have been most often studied.

Profile Comparison 3: Normal Development and ADHD

Attention-deficit/hyperactivity disorder (ADHD) is characterized by a persistent pattern of inattention and/or hyperactivity-impulsivity that is more frequently displayed and more severe than is typically observed in individuals at a comparable level of development but without ADHD (*DSM–IV–TR*, 2000). The *DSM–IV–TR* (2000) criteria for the diagnosis of ADHD include:

- Six or more symptoms of inattention that have persisted for at least 6 months to a degree that is inconsistent with developmental level, or
- Six or more symptoms of hyperactivity-impulsivity that have persisted for at least 6 months to a degree that is inconsistent with developmental level
- Some symptoms of hyperactivity or inattention were present before age 7
- Some impairment is present in two or more settings, for example at home or at school

Individuals with ADHD typically have difficulty with developmentally appropriate social and academic functioning. As a group, individuals with ADHD tend to be lower in all areas of adaptive functioning.

General profiles of strengths and weaknesses on the Vineland ABS have been suggested by the literature to differentiate between a normal population and a group with ADHD (Wilson & Marcotte, 1996; Stein et al., 1995; Roizen et al., 1994). When compared to typically developing individuals with approximately the same level of general intelligence, individuals with ADHD generally obtain lower standard scores in all domains.

Their profile reflects deficits in adaptive functioning associated with a persistent pattern of inattention and/or hyperactivity-impulsivity. For example, it is common for children with ADHD to be more delayed than their typically developing peers in the *habitual or routine* execution of Daily Living activities. Thus, they may be less inclined to "obey traffic lights," or "put away clean clothes." In addition, it is common for children with ADHD to be more delayed in their social development. Administration of the Vineland–II Teacher Rating Scale would also indicate if compliance in the classroom is a problem.

Consistent with published research, the results from the Vineland–II clinical validity study of individuals with ADHD (Chapter 8) show a profile of overall adaptive functioning somewhat lower than that of the nonclinical reference group. As expected, the individuals in the study had difficulty maintaining the focus and attention needed for effective performance in the Receptive Subdomain (e.g., listening attentively). They also showed deficits in the Expressive Subdomain (e.g., staying on topic in conversations) and with the Written Subdomain. They obtained relatively low scores in Interpersonal Relationships (e.g., choosing not to say embarrassing things), Play and Leisure Time activities (e.g., taking turns), and Coping Skills (e.g., talking with others without interrupting). The subjects in the clinical validity study, however, did not show the deficits in Daily Living Skills suggested by other research literature.

Profile Comparison 4: Normal Development and Hearing Impaired

Hearing impairments can adversely affect the development of adaptive behaviors needed for social sufficiency and competence in daily living. It would be expected that this group would show particular deficits in the Communication Domain (in both the Receptive and Expressive Subdomains) and in the Socialization Domain, particularly in the Interpersonal Relationships and Play and Leisure Time subdomains. When profiles for individuals with a hearing impairment are compared with those of individuals with normal hearing who have a similar level of cognitive functioning, individuals with hearing impairments demonstrate (Altepeter et al., 1986):

- Lower Communication scores
- Lower Socialization scores

Much of the research and clinical work on individuals with hearing impairments has been conducted on children living at home; thus, the profile described may be more indicative of that population than of children living in residential facilities. In general, individuals with hearing impairments are less advanced in adaptive communication and social skills than peers at a similar level of cognitive function. They may exhibit fewer adequate social skills such as "answering when familiar adult makes small talk" or other social behaviors where verbal communication is necessary.

The sample of individuals with hearing impairments used in the Vineland–II clinical validity studies (see Chapter 8) was recruited through specialized schools. As a result, a

large percentage of these individuals were deaf children of deaf parents, living in residential facilities. The group showed an overall lower level of adaptive functioning than the nonclinical reference sample. There were significant deficits in the Receptive and Expressive Subdomains as expected. Unlike the profile described above, however, this group had lower scores in Daily Living Skills. This result may reflect the living environment of the sample. Opportunities to prepare foods and perform routine housework may not occur frequently. Also this group showed socialization skills at a level similar to the normal population. This, too, may be a reflection of the fact that they live in an environment where they communicate and interact with deaf peers and teachers.

Profile Comparison 5: Nonspecific Mental Retardation and Down Syndrome

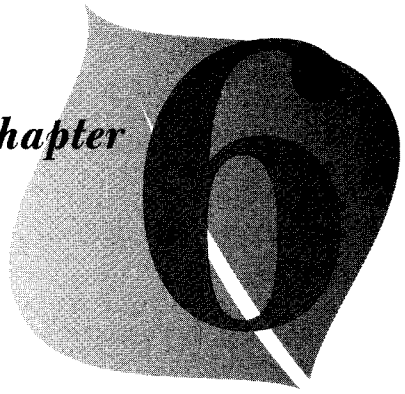
Both Nonspecific Mental Retardation and Down syndrome are diagnostic categories within the broad mental retardation diagnosis. General profiles of strengths and weaknesses have been suggested by the literature to differentiate between these diagnoses (Dykens, Hodapp, & Evans, 1994). Assuming that the hypothetical individuals being compared are at the same level of general intellectual ability, aspects of the adaptive behavior score profiles that tend to be different in these two groups include:

- Higher Communication scores for nonspecific MR
- Lower Socialization scores for nonspecific MR
- Higher Motor Skills scores for nonspecific MR

It is well documented that children with Down syndrome exhibit lower scores on the Communication and Motor Skills Domains when compared to peers with mental retardation who are at a similar level of cognitive functioning. However, it is not uncommon for children with Down syndrome to have higher social skills (Cullen et al., 1981). It would be helpful when planning interventions for children with Down syndrome to have the child's teacher complete a Vineland–II Teacher Rating Form, as an aid to designing a program to remediate specific behaviors.

These prototypic profiles are general guides to what has been shown to be characteristic of individuals within specific diagnostic groups. Obviously, not all individuals with these diagnoses will have the same specific or relative profile. It is important for clinicians to remember that the Vineland–II alone is **never** a sufficient basis for making a diagnosis of any given individual. The instrument provides evidence that should be evaluated along with other test data, a complete history, clinical observations, and other information.

Revision Goals, Content Development, and Standardization



Over the past 20 years, the *Vineland Adaptive Behavior Scales* (Vineland ABS) has been widely used with various client populations because of its theoretical basis, its careful definition of the domains and the salient behaviors therein, and its reliable measurement technique (semistructured interview). The goals for the revision, the *Vineland Adaptive Behavior Scales,* Second Edition (Vineland–II), were to build on these strengths, to update the normative base, and to adjust the content to reflect new cultural expectations of individuals with difficulties in adaptive functioning. Extensive research and literature review, as well as clinical observations, were the guiding forces for the revision.

Of notable importance to the Vineland–II development were clinicians' observations made through focus groups, surveys, and interviews. Five focus groups were conducted, composed of school psychologists, psychologists handling Social Security claims, child psychologists in hospitals and clinics, psychologists specializing in mental retardation, and staff in institutional settings for individuals with profound and severe disabilities. Users of the Vineland ABS and other target groups were contacted in eight surveys conducted by mail, by telephone, or at conventions, and specialists in areas such as autism took part in discussions. These groups identified several strengths to be retained in the Vineland–II, as well as outdated or unnecessary items or areas, and areas needing better definition. New areas of adaptive functioning that have become important because of cultural changes and new research knowledge of disabilities were also defined.

As a result of these evaluations, the Vineland–II development team identified three major cultural developments that have occurred since the Vineland ABS was published that needed to be considered in planning the revision. First, consistent with the growing recognition that adaptive behavior is modifiable, societal expectations of individuals with adaptive functioning deficits have changed over the past 20 years. Before 1980, most of those with adaptive functioning deficits were institutionalized or enrolled in specialized schools. Such individuals include those with mental retardation, visual impairments, hearing deficits, and physical disabilities. Living in protected environments or attending specialized schools meant that these individuals did not require a breadth of adaptive behaviors to maintain social sufficiency. As their participation in mainstream society has increased, these individuals have needed greater competence in more numerous and/or varied adaptive behaviors.

Second, improvements have been made in health, nutrition, and medical care over the past 20 years, all of which have contributed to an increase in average life span. As a result, there now is a larger number of people of advanced age whose adaptive functioning is impaired, creating the need for assessment instruments appropriate for this population. The Vineland–II was designed to help identify and monitor strengths and weaknesses in the older population so that appropriate supportive programs can be established to help maintain independent living.

Third, enhancements in day-to-day living have resulted from the proliferation of advanced technologies. The increased reliance on sophisticated technologies for communication and everyday tasks requires different knowledge and abilities than were needed 20 years ago. The ability to use these technologies has become important for social competence.

In addition to these cultural developments, another major influence on the Vineland–II development plan was the knowledge derived from 20 years of research using the Vineland ABS with diverse populations. The Vineland ABS has been crucial in the evolution of theoretical and practical understanding of various diagnoses because it has provided reliable information for identifying the adaptive behavior patterns of individuals with a broad range of developmental delays and disabilities. Many studies have documented the utility of the Vineland ABS for differential diagnoses of developmental delays. The research base also indicated

that the Vineland ABS was particularly sensitive in identifying both individuals who were developmentally delayed at a very young age and those within the autism spectrum. (Boelte & Poustka, 2002; Chakrabarti & Fombonne, 2001; Klin, Carter, & Sparrow, 1997; Kraijer, 2000; Platt et al., 1991; Volkmar et al., 1987).

Overall, the Vineland revision built on the strengths of the Vineland ABS by:

- removing adaptive behaviors considered to be less salient than they were 20 years ago
- adding items to assess independent living and social competence outside of an institutional or protected setting
- refining or clarifying existing content as needed
- including content to assess adaptive behavior decline occurring in the aging process
- increasing content relating to the very young ages to improve diagnostic utility
- improving descriptions of strengths and weaknesses across a wider range of disabilities
- providing new normative tables that offer an up-to-date basis for comparison

The Vineland–II also provides a rating form for occasions when it is not possible for the clinician to conduct a semistructured interview.

Stages of Development

The Vineland–II Survey Interview Form, Parent/Caregiver Rating Form, and Teacher Rating Form were developed concurrently. This section describes the procedures used to revise the content and to collect and analyze data in item development, tryout, and standardization.

Item Development

The first step in item development was the decision to retain the basic three-domain structure of the Vineland ABS, a structure supported by the National Academy of Science, the American Psychological Association, and the American Association on Mental Retardation (National Academies Press, 2002; Jacobson & Mulick, 1996; AAMR, 2002). At the same time, it was determined that new content would be incorporated into the Vineland–II to improve the assessment of individuals with disabilities who are functioning independently in society, and to improve the instrument's sensitivity and diagnostic utility.

Item specifications were developed for each area of competence. Based on the Vineland ABS, a list of competencies in adaptive behavior was created and expanded as needed. Clusters of adaptive behaviors were defined. Item specifications were created that described the sequential skills required to master the highest level in a targeted area of competence, and these specifications guided item development.

The resultant item pool consisted of over 3,800 items. An editorial panel reviewed the items by cluster, and some items were deleted or revised. In the end, all revised and retained items met the same criteria as had been used for developing items for the Vineland ABS:

- representative of activities necessary for personal and social sufficiency
- relevant over time
- easily understandable by respondents, regardless of educational, social, or cultural background
- applicable to most individuals, regardless of background or geographic location
- readily amenable to objective scoring procedures
- easily translatable into educational, habilitative, or treatment program objectives

Content and Bias Reviews

Twelve clinicians who assess individuals who are from diverse racial/ethnic backgrounds and who have developmental disabilities were asked to evaluate for relevance and bias the reduced set of 1,328 items. The reviewers had extensive experience using the Vineland ABS to assist in diagnosis or evaluation, program planning, parent/guardian consultations, or program qualification. The review panel included a balance of female and male reviewers from various regions of the United States.

The reviewers were asked to identify any items that their clients from a given population subgroup would find:

- offensive or disturbing
- irrelevant within a particular environment (e.g., urban, suburban, or rural)
- relatively unimportant, or irrelevant, in identifying an adaptive behavior
- different in meaning than for the general population
- unclear or confusing

The reviewers, listed in Appendix A, also evaluated the content coverage in each subdomain by indicating whether or not the content assessed all of the important and relevant adaptive behaviors.

Item Tryout

The Vineland–II tryout had the following goals:

- to define the developmental sequence of items based on a large, representative sample
- to reduce the number of items in each subdomain while maintaining content coverage and reliability
- to obtain estimates of domain and subdomain reliability, based on a large sample
- to evaluate the role of each domain and subdomain in the Vineland–II scale and subscale structure by determining their intercorrelations and factor structures
- to ascertain the need for additional items to strengthen floor, ceiling, or reliability
- to revise or eliminate those items that performed differently by sex or race/ethnicity, or that otherwise performed poorly
- to identify items that did not perform differently in the clinical groups as compared to the general-population sample
- to obtain information on nonpsychometric characteristics of the instrument, such as administration time and clarity of instructions
- to evaluate the technical measurement properties of the Parent/Caregiver Rating Form relative to the Interview Form

Tryout Forms

The materials used for item tryout consisted of the Interview Form, the Parent/Caregiver Rating Form, and the Teacher Rating Form. The Interview Form and Parent/Caregiver Rating Form were identical in item content except for some rephrasing to make the items appropriate for their intended users. The 855 unique items of the Interview Form and Rating Form were arranged in estimated developmental sequence within content clusters, and the content clusters were themselves placed in approximate developmental sequence. The content was then divided into three overlapping levels designed for different age ranges: young children, school-age children, and adults. Each level consisted of between 427 and 492 items. The lowest level (young children) did not include maladaptive scale items. The Teacher Rating Form had a single form with 420 items.

Tryout Data Collection

In the spring and summer of 2001, 122 sites collected data on both a general-population sample and selected clinical groups using all three tryout instruments (Interview Form, Parent/Caregiver Rating Form, and Teacher Rating Form). The procedures used to recruit organizations for testing, to gather participation forms, to select the sample, and to organize data collection were similar to those used in standardization (described in detail later in this chapter). The discussion below will describe only the Interview Form and the Parent/Caregiver Rating Form.

The general-population sample of 1,843 individuals was chosen by random sampling from a pool of over 5,800 individuals aged birth through 77 years. For purposes of item bias analyses, approximately one-third of the tryout sample was African American, one-third was Hispanic, and one-third was white. Sex, socioeconomic status, community size (urban, suburban, rural), and geographic region were also controlled in the sampling plan. For the child sample, socioeconomic status was estimated using the highest grade completed by the mother or female guardian, or by the father or male guardian if the mother's education level was not available. For the adult sample, the highest grade completed by the individual was used as the index of socioeconomic status. Individuals who were institutionalized, who were receiving special-education services or Social Security Disability Insurance, or who were identified as having a disability were not included in the general-population sample.

The clinical sample consisted of 392 individuals identified as having mental retardation, pervasive developmental disorder not otherwise specified (PDD-NOS), autism, or Asperger syndrome.

Examiners conducted semistructured interviews with the respondents (parents, caregivers, or others who knew the individual well) about each individual. Approximately one-third of the respondents for the general-population sample were also asked to complete the Parent/Caregiver Rating Form.

The site coordinator reviewed each submitted form for completeness and scoring consistency. In addition, cases were inspected by the development team, and obvious instances of item misscoring were corrected. Misscoring most often occurred when a behavior was no longer appropriate for the individual, so that even though the individual was obviously capable of performing the behavior (as indicated by positive ratings on more difficult items), the examiner or respondent rated the behavior as never occurring. Occasionally a behavior was

rated as "always" occurring when the behavior was not a reasonable possibility (e.g., a 12-month-old bathing or showering at least twice a week); in these cases, the rater ignored the level of independence required.

Tryout Data Analysis

Tryout data were analyzed at the item and subdomain levels. At the item level, analyses concerned:

- developmental sequence of the items and the ages at which particular skills are acquired
- item validity, that is, the degree to which the item assesses the dimension measured by the subdomain to which it belongs
- item placement (whether the item belongs on a different subdomain)
- clinical sensitivity, i.e., the difference in item scores between the clinical and general-population samples
- bias with regard to gender, ethnicity, or socioeconomic status

Item analyses relied principally on subdomain calibrations using the partial-credit form of the Rasch model, which provided information on item fit (a measure of item validity) and item difficulty. In general, Rating Form items tended to fit as well as, or better than, their counterparts in the Interview Form. Item difficulties were used to evaluate developmental sequence, and few differences were observed in sequence between the Rating Form and Interview Form. The Rasch method was also employed to evaluate possible item bias: calibrations were run separately for each demographic subgroup, and the difference in each item's difficulty between subgroups was used as an indicator of differential item functioning. To assess the clinical sensitivity of items, mean item raw scores by age in the general-population and clinical samples were compared; the team considered the range of ages at which performance differed between the groups, as well as whether the skill was ever acquired by the clinical group. In choosing items for the standardization forms, items showing potential for differentiating between clinical cases and the general population were favored.

Analyses at the subdomain level evaluated internal-consistency reliability, the progression of mean raw scores across age, and the intercorrelations and factor structure of the subdomains. Subdomain reliabilities were computed for each age group of the general-population sample using the split-half procedure. The items of each subdomain were divided into equivalent halves based on content and item difficulty. For each individual, a raw score was computed for each half, and correlations between the halves were computed and adjusted using the Spearman-Brown formula. Reliabilities of the Rating Form subdomains were found to be comparable to those of the Interview Form, supporting continued development of the Rating Form format. Subdomain reliabilities also were used as guides to the number of items that needed to be retained on each subdomain in the standardization edition. Exploratory (principal axis) factor analyses supported the assignment of the subdomains to the three domains.

The easiest levels of the Interview Form and Rating Form proved to be too easy for individuals aged 4 or 5, and so the data from those ages were not included in the tryout analyses.

Development of the Standardization Forms

The principal goal of the tryout was to enable the development team to select a subset of valid, fair, and clinically discriminating items that assess the most important behaviors efficiently, reliably, and without redundancy; and to construct standardization forms with those items arranged in proper developmental sequence. Because the final Survey Interview Form and Parent/Caregiver Rating Form would each have only one level, the number of items had to be reduced substantially. Items for the standardization forms were selected based on clinical importance, fit (validity), freedom from bias, contribution to subdomain reliability, and content coverage. One criterion for dropping items was redundancy: when there were several items of equivalent difficulty measuring closely related behaviors, some of those items could be removed without harming reliability or content coverage. Alternatively, two items might be merged into one if their difficulties were similar and their content was compatible.

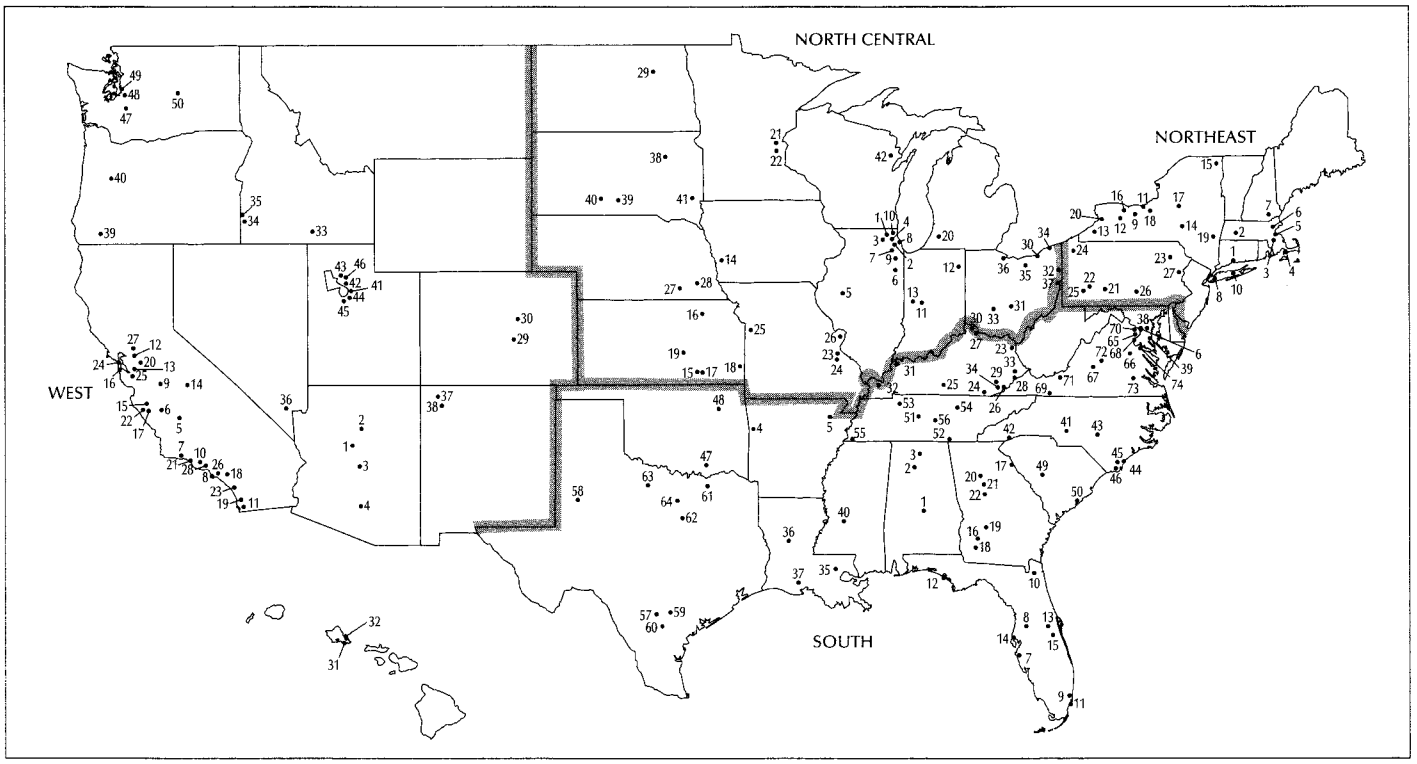
The standardization versions of the Survey Interview Form and Parent/Caregiver Rating Form were identical in their item composition and item sequence, which was based on the item order determined from the Interview Form tryout data. Few items needed to be changed for standardization. The wording of items that tended to be misscored (as described above) often was revised in an effort to make the meaning more clear. Some new items were added, either to fill gaps at certain levels of difficulty within a subdomain, or to add coverage of an important behavior.

Standardization

Standardization of the Vineland–II Survey Interview Form and Parent/Caregiver Rating Form took place from March 2003 to October 2004. Each of these forms

consisted of 444 items in the three primary domains (Communication, Daily Living Skills, and Socialization), the Motor Skills Domain, and the Maladaptive Behavior Domain. A nationally representative sample of 3,695 individuals aged birth through 90 years was assessed at 242 sites in 44 states and the District of Columbia (see **Figure 6.1**). Appendix A lists the schools, school districts, and other facilities that participated in standardization.

Figure 6.1 Testing Sites



NORTHEAST

Connecticut

1. New Haven

Massachusetts

2. Amherst
3. Hyde Park
4. Mashpee
5. Roxbury
6. Woburn

New Hampshire

7. Manchester

New York

8. Brooklyn
9. Canandaigua
10. Central Islip
11. Clyde
12. Geneseo
13. Gowanda
14. Morris
15. Morrisonville
16. Rochester
17. Rome
18. Savannah
19. Waterford
20. Williamsville

Pennsylvania

21. Alexandria
22. Commodore
23. Dalton
24. Edinboro
25. Indiana
26. Lewistown
27. Stroudsburg

NORTH CENTRAL

Illinois

1. Buffalo Grove
2. Chicago
3. Crystal Lake
4. Hainesville
5. Jacksonville
6. Momence
7. Palos Heights
8. Rosemont
9. University Park
10. Waukegan

Indiana

11. Avon
12. Fort Wayne
13. Greencastle

Iowa

14. Council Bluffs

Kansas

15. Clearwater
16. Concordia
17. Douglass
18. Pittsburg
19. Sterling

Michigan

20. Kalamazoo

Minnesota

21. Harris
22. Lino Lakes

Missouri

23. Festus
24. Hillsboro
25. Raymore
26. St. Louis

Nebraska

27. Hastings
28. Lincoln

North Dakota

29. Devils Lake

Ohio

30. Cleveland
31. Columbus
32. Cortland
33. Huber Heights
34. Mentor
35. Olmsted Falls
36. Toledo
37. Youngstown

South Dakota

38. Estelline
39. Mission
40. Porcupine
41. Sioux Falls

Wisconsin

42. Valders

SOUTH

Alabama

1. Clanton
2. Jasper
3. Madison

Arkansas

4. Van Buren
5. Walnut Ridge

District of Columbia

6. Washington

Florida

7. Bradenton
8. Bushnell
9. Fort Lauderdale
10. Jacksonville
11. Miami
12. Panama City
13. Sanford
14. Tampa
15. Winter Park

Georgia

16. Albany
17. Augusta
18. Camilla
19. Cordele
20. Decatur
21. Fayetteville
22. Griffin

Kentucky

23. Ashland
24. Baxter
25. Bowling Green
26. Cawood
27. Covington
28. Cumberland
29. Evarts
30. Fort Thomas
31. Morganfield
32. Paducah
33. Pikeville
34. Wallins

Louisiana

35. Baton Rouge
36. Colfax
37. Lafayette

Maryland

38. Baltimore
39. Prince Frederick

Mississippi

40. Whitfield

North Carolina

41. Charlotte
42. Cullowhee
43. Fayetteville
44. Hampstead
45. Leland
46. Wilmington

Oklahoma

47. Bokchito
48. Tulsa

South Carolina

49. Columbia
50. Mount Pleasant

Tennessee

51. Brentwood
52. Chattanooga
53. Erin
54. Livingston
55. Memphis
56. Nashville

Texas

57. Austin
58. Lubbock
59. New Braunfels
60. San Antonio
61. Sherman
62. Waco
63. Wichita Falls
64. Wylie

Virginia

65. Alexandria
66. Bowling Green
67. Buckingham
68. Burke
69. Hillsville
70. McLean
71. New Castle
72. Palmyra
73. Richmond
74. Tappahannock

WEST

Arizona

1. Camp Verde
2. Flagstaff
3. Scottsdale
4. Tucson

California

5. Bakersfield
6. Calabasas
7. Camarillo
8. Carson
9. Caruthers
10. Castaic
11. Chula Vista
12. Fairfield
13. Fremont
14. Fresno
15. Greenfield
16. Half Moon Bay
17. King City
18. Lake Elsinore
19. Lemon Grove
20. Manteca
21. Northridge
22. Oak Park
23. San Diego
24. San Francisco
25. San Jose
26. San Pedro
27. Vacaville
28. Woodland Hills

Colorado

29. Colorado Springs
30. Denver

Hawaii

31. Honolulu
32. Kaneohe

Idaho

33. Burley
34. Caldwell
35. Greenleaf

Nevada

36. Las Vegas

New Mexico

37. Blanco
38. Bloomfield

Oregon

39. Medford
40. Salem

Utah

41. Farmington
42. Layton
43. River Heights
44. Salt Lake City
45. Spanish Fork
46. Sunset

Washington

47. Puyallup
48. Sumner
49. Tacoma
50. Wenatchee

Standardization Testing Plan

The testing plan for standardization defined which tests and measures were administered to which groups of individuals, specified the demographic composition of the norm sample, and identified how the reliability and validity studies would be conducted. In the Vineland–II standardization, data were collected in various combinations for the following forms:

- Expanded Interview Form
- Parent/Caregiver Rating Form
- Survey Interview Form
- Teacher Rating Form

This manual addresses only the standardization data collection and results for the Survey Interview Form and Parent/Caregiver Rating Form, which were identical in content, differing only in the method of administration.

Norm Sample

The demographic targets for the Vineland–II norm sample, based on the *Current Population Survey, March 2001*, were applied to 20 age groups covering the age range of birth through 90 years. Because adaptive behaviors develop rapidly at younger ages, target sample sizes included more cases per year at the younger end of the age range than at the older end. Each age group was designed to be evenly split between males and females and to match the U.S. population with regard to race/ethnicity, socioeconomic status, and geographic region. Community size and special-education program placement were also controlled during sample selection.

Clinical Samples

Eleven clinical groups were defined, and data were collected as evidence for the validity of the Vineland–II in identifying adaptive behavior deficits in those populations. These samples included individuals identified as having one or more of the following conditions:

- attention-deficit/hyperactivity disorder
- autism–nonverbal
- autism–verbal
- emotional or behavioral disturbance
- deafness/hard of hearing

- learning disability
- mental retardation–mild (child and adult samples)
- mental retardation–moderate (child and adult samples)
- mental retardation–severe/profound (adult sample)
- visual impairment

Reliability and Validity Studies

Data were collected to provide three types of evidence for the reliability of the Survey Interview Form and the Parent/Caregiver Rating Form:

- internal-consistency reliabilities, using the split-half method, for each domain and subdomain and for the Adaptive Behavior Composite, in each of the 20 age groups
- test-retest reliabilities for four different age ranges
- interrater reliabilities for four different age ranges

Criterion-related validity studies were conducted to gather evidence on the relationship of Vineland–II scores with scores on a number of instruments assessing behavior and ability:

- *Adaptive Behavior Assessment System,* Second Edition (ABAS–II)
- *Behavior Assessment System for Children,* Second Edition (BASC–2)
- Vineland ABS
- *Wechsler Adult Intelligence Scale,* Third Edition (WAIS–III)
- *Wechsler Intelligence Scale for Children,* Third Edition (WISC–III)

Standardization Data Collection

The data collection phase of standardization consisted of four primary tasks: selecting site coordinators and examiners; selecting the norm sample; selecting the clinical, reliability, and validity samples; and collecting the data.

Selection of Site Coordinators and Examiners

Site coordinators were recruited at national conferences, through the publisher's Web site, and through contact with users of the Vineland ABS and participants in other test-development projects conducted by AGS Publishing. Site coordinators managed all data-collection activities at their location and served as liaisons between examiners and project staff. Additional responsibilities included recruiting, training, and supervising examiners, and identifying organizations that could assist in recruiting individuals to be assessed.

All site coordinators and examiners were required to meet the qualifications for using individually administered behavior assessment instruments. Qualified individuals included school and clinical psychologists, neuropsychologists, and other professionals such as directors or professors of graduate training programs. The latter trained and supervised graduate students as examiners if those students had already completed training in interview techniques.

Examiners, site coordinators, and respondents were paid for each complete, correctly administered case. Schools and other organizations that assisted in distributing and collecting participation forms also received compensation for each completed participation form returned.

Norm Sample Selection

Accurate norms depend on acquiring a sample that closely resembles the current U.S. population of children, adolescents, and adults. For the Vineland–II, such a sample was achieved through the collection of demographic information on a large group of individuals for potential assessment and the application of random sampling methods to match the testing plan described previously.

Demographic variables were controlled as a way of ensuring that the final sample would resemble the U.S. population in the distribution of adaptive behaviors measured by the Vineland–II. A random sampling process was also incorporated in the selection of the norm sample. This process is important, for if examiners are solely responsible for recruitment, they might recruit their own relatives or the children of friends or colleagues. Occurrence of such biases is minimized by gathering the participation forms of numerous individuals for potential assessment and then selecting randomly from among those forms.

To establish a pool of individuals for testing, site coordinators were sent numerous participation forms (approximately 10 times more than the number of expected cases) for distribution to schools, daycare centers, church groups, neighborhood organizations, and individual families. The forms described the testing project, requested participation, and gathered demographic information about the person to be assessed. Also included was information for identifying a knowledgeable respondent and qualifying the individual for the sample. The forms were available in both English and Spanish and allowed for both children and adults

to be assessed. All returned forms were sent to the test publisher for processing.

Selection of a norm sample of 3,695 cases was made electronically from a pool of over 25,000 individuals in a way that matched the demographic variable targets within each age group. Individuals with various disabilities or other special conditions were eligible for inclusion in the norm sample, and are represented proportionally to their incidence in the population.

Clinical, Reliability, and Validity Sample Selection

The testing plan defined samples for reliability, validity, and clinical studies. The reliability and validity study samples consisted of individuals who met the criteria for the norm sample. For the clinical studies, individuals were selected for inclusion if they had been identified as having a target disorder and had supporting psychometric evidence. Much of the recruitment of individuals with visual or hearing impairments was done through specialized schools. As a result, a large percentage of these individuals came from residential facilities.

Data Collection Procedures

The project team carefully defined and communicated the data collection process and results, established systematic quality control procedures, and provided consistent support for the site coordinators and examiners. Lists of individuals to be tested were sent with testing materials to the site coordinators, who then assigned the cases to the examiners. Examiners were asked either to administer the Survey Interview Form to knowledgeable respondents or to have those respondents complete the Parent/Caregiver Rating Form, or both. The project team regularly reviewed and checked forms, answered questions, and provided additional materials and status updates.

To ensure the accuracy of administration and scoring, a two-part procedure was established. First, examiners submitted their first few completed interviews to the project team, which reviewed them for errors and inconsistencies based on the Vineland–II Scoring Criteria (see Appendix E). If inconsistencies were found, cases were returned to the examiner with an explanation of the problem. For cases scored inaccurately or incompletely, the examiner was asked to verify the information and to correct and complete the form. After this initial review, examiners were asked to review and submit the remaining cases as they were completed. Cases were eliminated from the sample if they could not be corrected or completed.

Review by the development team was particularly important for the Parent/Caregiver Rating Form because of the respondents' inexperience in completing such a form. Common points of confusion included whether to rate usual behavior versus ability and whether to rate skills (such as crawling) that, although mastered at a much earlier age, were no longer occurring and had been replaced by a higher-order skill (such as walking). These inconsistencies were resolved by the team before the data were analyzed.

In addition, a variety of statistical procedures were implemented to identify cases showing implausible data patterns at the item or subtest level. Eliminated from the sample were cases whose validity was questionable, as a result of either the statistical analyses or a visual review. Also, randomly selected respondents were telephoned to verify that they had been interviewed.

Comparability Analysis

During standardization, a special study was undertaken to investigate the comparability of the Survey Interview and Parent/Caregiver Rating Forms. The objective was to determine whether subdomain raw scores from the two forms were sufficiently comparable to be combined into a single set of data for norming purposes. This section describes the steps that were taken and the evidence that was used to justify combining the data from the two forms.

The Survey Interview and Parent/Caregiver Rating Forms differ in method of administration but not in content. The Survey Interview Form, which uses the semistructured interview method, has a long history of providing accurate measurement of adaptive behavior across a diverse population. An advantage of the semistructured interview is that the trained examiner will recognize when a respondent is overstating or understating an individual's level of adaptive behavior functioning. When the examiner encounters such a situation, he or she can probe to obtain a more accurate rating, or can use clinical judgment to modify the rating. It is difficult to identify systematic over-rating or underrating of behavior on a rating form that has been filled out by the respondent.

For this and other reasons, scores obtained from independent parent/caregiver ratings might differ in level or reliability from those obtained through a semi-structured interview. In order to justify combining data from the Parent/Caregiver Rating Form with data from the Survey Interview Form for purposes of creating norms, it must be shown that: (1) the two forms have

equal raw score means and standard deviations across age groups, (2) the two forms produce equally reliable measures of performance, (3) scores from the two forms are highly correlated, and (4) individual items function in the same way on the two forms. Some of these analyses were conducted using a sample of 760 individuals who had been assessed under both the semistructured interview method and the rating method, and the other analyses are based on the entire standardization sample.

Description of the Comparability Analysis Sample

Table 6.1 shows the demographic characteristics of the sample of 760 individuals who were assessed under both the semistructured interview and parent/caregiver rating method. Males and females were fairly evenly represented in each age group. All major ethnic groups, and individuals with low SES as estimated by mother's education, were well represented. Overall, females comprised 49 percent of the sample, ethnic minority groups comprised 47 percent of the sample, and individuals with low SES comprised 44 percent of the sample.

In about 90 percent of the cases, the semistructured interview was administered first. Because examiners do not read items aloud during the semistructured interview, the respondent does not know how an item is scored, or even what item is being scored. Therefore, having the semistructured interview conducted first minimizes the possible biasing effect of the first administration on the second administration.

Raw Score Means and Standard Deviations

Items and persons were calibrated using the partial-credit model of the WINSTEPS item response theory (IRT) program (Linacre, 2003). For the calibration, all 5,013 cases that had been completed and entered up to that point of the standardization data collection phase were used. Fifty-two percent of the cases were assessed with the Parent/Caregiver Rating Form, and 48% were assessed with the Survey Interview Form. The analysis produced an ability score for each individual on each subdomain. These ability scores are reported in the logit scale, which is centered on a mean item difficulty value of zero; ability scores ranged from about −10 to +10. **Table 6.2** shows the means and standard deviations of subdomain ability scores for the 760 individuals who were assessed using both the Survey Interview Form and Parent/Caregiver Rating Form, by age group. The last column presents the weighted averages of the mean ability and standard deviation across age groups for each subdomain, by form. Generally, the ability score differences between forms are very small: differences between means range from 0.0 logit units to 0.3 logit units. Within age groups, the subdomain differences range from 0.0 logit units to 0.5 logit units, with most differences being smaller than 0.2 units. When the difference between means is expressed in terms of the within-age standard deviation, 46 of the 77 differences are smaller than .1 of a standard deviation, and 70 are smaller than .2 of a standard deviation. Cohen (1969) describes differences smaller than .3 standard deviation units as "small." There are no systematic differences between forms in the level of subdomain mean scores; rather, the size and direction of the mean score differences between forms vary across subdomains and age groups.

Table 6.1 Demographic Characteristics of the Comparability Analysis Sample, by Age

		Age														Total	
		0–2		3–5		6–8		9–11		12–15		16–21		22–90			
		N	%	*N*	%	*N*	%	*N*	%	*N*	%	*N*	%	*N*	%	*N*	%
Sex	Female	96	53.0	59	48.0	76	52.4	48	40.0	43	44.8	32	47.8	16	57.1	370	48.7
	Male	85	47.0	64	52.0	69	47.6	72	60.0	53	55.2	35	52.2	12	42.9	390	51.3
Race	Nonwhite	81	44.8	61	49.6	68	46.9	69	57.5	37	38.5	23	34.3	18	64.3	357	47.0
	White	100	55.2	62	50.4	77	53.1	51	42.5	59	61.5	44	65.7	10	35.7	403	53.0
Mother's Education	High School Graduate and below	82	45.3	53	43.1	53	36.6	57	47.5	43	44.8	32	47.8	17	60.7	337	44.3
	Some College and above	99	54.7	70	56.9	92	63.4	63	52.5	53	55.2	35	52.2	11	39.3	423	55.7
	Total *N* per Demographic Category	181		123		145		120		96		67		28		760	100.0

Table 6.2 Means and Standard Deviations of Subdomain Ability Scores in the Comparability Analysis Sample[a]

				Age							
				0–2	3–5	6–8	9–11	12–15	16–21	22–90	Mean[b]
Communication	Receptive	Survey Interview Form	Mean	−1.5	4.2	5.9	6.8	7.8	8.3	8.2	4.5
			SD	3.7	1.7	1.9	2.0	1.4	0.8	0.8	2.1
		Parent/Caregiver Rating Form	Mean	−1.6	3.8	5.7	6.8	7.9	8.2	8.2	4.4
			SD	3.7	1.9	2.0	1.8	1.5	0.9	0.9	2.2
	Expressive	Survey Interview Form	Mean	−3.1	3.1	5.3	6.5	7.6	8.1	7.8	3.8
			SD	3.3	1.7	1.5	1.8	1.4	1.2	1.0	2.0
		Parent/Caregiver Rating Form	Mean	−3.1	3.0	5.0	6.6	7.7	8.1	8.1	3.7
			SD	3.3	1.8	1.7	1.7	1.5	1.3	1.4	2.0
	Written	Survey Interview Form	Mean	−6.0	−4.4	2.0	4.5	6.7	8.2	8.2	0.8
			SD	4.7	2.8	2.0	1.8	2.0	1.7	2.1	2.7
		Parent/Caregiver Rating Form	Mean	−6.0	−4.6	1.7	4.3	6.5	8.0	7.9	0.6
			SD	5.1	2.9	2.1	1.8	1.9	1.7	1.9	2.8
Daily Living Skills	Personal	Survey Interview Form	Mean	−4.1	1.2	3.2	4.5	6.3	7.7	9.2	2.4
			SD	3.4	1.4	1.4	1.4	1.6	1.9	1.7	1.9
		Parent/Caregiver Rating Form	Mean	−3.8	1.5	3.5	5.0	6.6	7.8	9.1	2.7
			SD	3.3	1.5	1.5	1.5	1.9	2.0	1.8	2.0
	Domestic	Survey Interview Form	Mean	−3.1	−1.9	−0.4	1.2	2.8	4.1	5.6	0.0
			SD	1.9	1.2	1.3	1.5	1.7	2.0	1.7	1.6
		Parent/Caregiver Rating Form	Mean	−3.4	−1.7	−0.2	1.3	3.0	4.1	5.7	0.0
			SD	2.1	1.2	1.4	1.6	2.0	2.1	1.6	1.7
	Community	Survey Interview Form	Mean	−4.6	−2.5	−0.2	1.4	2.5	4.5	6.9	−0.4
			SD	1.8	1.1	1.2	1.1	1.1	1.7	1.8	1.4
		Parent/Caregiver Rating Form	Mean	−4.6	−2.4	0.0	1.6	2.7	4.6	6.9	−0.2
			SD	2.0	1.3	1.2	1.2	1.2	1.7	1.8	1.5
Socialization	Interpersonal Relationships	Survey Interview Form	Mean	−1.4	2.0	3.4	4.5	5.7	7.3	8.2	3.0
			SD	2.1	1.4	1.3	1.3	1.5	1.8	1.8	1.6
		Parent/Caregiver Rating Form	Mean	−1.4	2.2	3.6	4.6	5.7	7.3	8.1	3.1
			SD	2.0	1.6	1.4	1.2	1.4	1.9	2.0	1.6
	Play and Leisure Time	Survey Interview Form	Mean	−2.4	1.0	2.6	3.4	4.8	6.5	6.7	2.0
			SD	2.3	1.3	1.1	1.1	1.5	1.5	1.8	1.5
		Parent/Caregiver Rating Form	Mean	−2.4	1.1	2.7	3.5	4.5	6.1	6.5	2.0
			SD	2.2	1.4	1.2	1.2	1.6	1.8	1.9	1.6
	Coping Skills	Survey Interview Form	Mean	−3.1	−0.6	0.9	2.0	2.9	4.0	5.0	0.6
			SD	1.7	1.2	1.2	1.5	1.5	1.9	2.1	1.5
		Parent/Caregiver Rating Form	Mean	−3.2	−0.4	1.0	2.0	3.0	4.3	4.7	0.6
			SD	1.8	1.4	1.3	1.6	1.6	2.0	1.8	1.6
Motor Skills	Gross	Survey Interview Form	Mean	−1.2	4.7	6.7	7.5	7.6	7.7	6.7	4.8
			SD	4.0	1.8	1.3	0.9	0.6	0.3	1.7	1.8
		Parent/Caregiver Rating Form	Mean	−1.0	4.6	6.8	7.5	7.6	7.7	6.8	4.9
			SD	4.0	1.5	1.3	0.9	0.7	0.5	1.8	1.8
	Fine	Survey Interview Form	Mean	−3.0	2.6	5.7	7.5	8.1	8.2	7.7	4.0
			SD	3.3	1.9	1.7	1.2	0.8	0.4	1.0	1.8
		Parent/Caregiver Rating Form	Mean	−3.0	2.6	5.8	7.3	8.0	8.1	7.6	4.0
			SD	3.3	1.9	1.6	1.3	0.9	0.5	1.2	1.8

[a] Rasch ability estimates obtained from individual subdomain calibrations
[b] Weighted mean

Internal-Consistency Reliability

For each of the two forms, internal-consistency reliability was calculated for each subdomain in each of seven age groups using all 5,013 standardization cases available at the time of the analysis. The split-half method was used: items were divided into two sets, one set comprised of odd numbered items and the other comprised of even numbered items. The partial-credit model of the WINSTEPS IRT program was used to generate person ability estimates separately for each item set. The Pearson correlation was computed between the odd-item and even-item person ability estimates, and the correlation was adjusted for test length using the Spearman-Brown Prophecy formula. The subdomain reliabilities by form are reported in **Table 6.3**. Of the 154 reliabilities (77 on each form), more than half are .90 or greater, and only six are below 0.80. Generally, the reliability coefficients are very similar on the two forms; the largest difference between median (across-age) reliabilities is only .03.

Table 6.3 Split-Half Reliability Coefficients for Subdomains on the Survey Interview Form and Parent/Caregiver Rating Form, by Age[a]

			Age							
			0–2	3–5	6–8	9–11	12–15	16–21	22–90	Median
Communication	Receptive	Survey Interview Form	0.96	0.84	0.88	0.82	0.85	0.84	0.39	0.84
		Parent/Caregiver Rating Form	0.96	0.88	0.87	0.86	0.83	0.91	0.72	0.87
	Expressive	Survey Interview Form	0.99	0.96	0.95	0.91	0.84	0.80	0.73	0.91
		Parent/Caregiver Rating Form	0.99	0.97	0.94	0.92	0.88	0.89	0.88	0.92
	Written	Survey Interview Form	—	0.95	0.96	0.92	0.87	0.86	0.90	0.91
		Parent/Caregiver Rating Form	—	0.95	0.96	0.94	0.92	0.94	0.93	0.94
Daily Living Skills	Personal	Survey Interview Form	0.97	0.95	0.91	0.79	0.71	0.78	0.84	0.84
		Parent/Caregiver Rating Form	0.97	0.93	0.85	0.84	0.81	0.86	0.86	0.86
	Domestic	Survey Interview Form	0.95	0.90	0.93	0.91	0.85	0.85	0.85	0.90
		Parent/Caregiver Rating Form	0.94	0.91	0.93	0.92	0.92	0.90	0.86	0.92
	Community	Survey Interview Form	0.96	0.93	0.93	0.87	0.85	0.90	0.90	0.90
		Parent/Caregiver Rating Form	0.96	0.94	0.94	0.90	0.91	0.92	0.91	0.92
Socialization	Interpersonal Relationships	Survey Interview Form	0.97	0.95	0.94	0.90	0.85	0.79	0.90	0.90
		Parent/Caregiver Rating Form	0.98	0.96	0.94	0.90	0.87	0.89	0.88	0.90
	Play and Leisure Time	Survey Interview Form	0.96	0.94	0.92	0.82	0.85	0.80	0.88	0.88
		Parent/Caregiver Rating Form	0.97	0.94	0.89	0.88	0.87	0.83	0.88	0.88
	Coping Skills	Survey Interview Form	0.94	0.95	0.95	0.92	0.86	0.81	0.88	0.92
		Parent/Caregiver Rating Form	0.94	0.96	0.95	0.94	0.92	0.89	0.91	0.94
Motor Skills[b]	Gross	Survey Interview Form	0.98	0.89	—	—	—	—	0.92	0.92
		Parent/Caregiver Rating Form	0.99	0.90	—	—	—	—	0.95	0.95
	Fine	Survey Interview Form	0.97	0.94	—	—	—	—	0.76	0.94
		Parent/Caregiver Rating Form	0.98	0.96	—	—	—	—	0.84	0.96

[a] Correlation of Rasch ability estimates obtained from an odd/even numbered item split by subdomain and corrected for half-test length by the Spearman-Brown formula

[b] Ages 0–6 and 50–90

Correlations Between Forms

Another way to evaluate comparability is to compare the correlation between subdomain ability scores obtained using the two methods (i.e., semistructured interview and parent rating) with the correlation between ability scores from two administrations of the same form. The between-form correlation of subdomain ability scores is analogous to a test-retest correlation, but with different methods of administration. Therefore, one would expect the two sets of correlations to be very similar if administration format has little effect on subdomain scores.

Table 6.4 presents two sets of correlations, one set for individuals who were assessed with both methods (Interview versus Rating), and the other set for individuals who were assessed on two occasions with the same form (two Interviews, or two Ratings). For the test-retest correlation, the data from the Survey Interview Form and Parent/Caregiver Rating Form were combined. Median correlations across age groups are also reported. Generally, the correlations between Survey Interview Form scores and Parent/Caregiver Rating Form scores are very similar to the test-retest correlations. There is no systematic difference across age groups within a subdomain, or across subdomains. The results of this comparison show that scores from the Survey Interview Form and the Parent/Caregiver Rating Form agree as closely as do two administrations of either of the forms, indicating that the administration format does not significantly influence results.

Table 6.4 Correlations Between Survey Interview Form and Parent/Caregiver Rating Form Subdomain Scores for the Comparability Analysis Sample, by Age[a]

Domain and Subdomain		Age								
		0–2	3–5	6–8	9–11	12–15	16–21	22–90	Median	Median[b]
Communication	Receptive	0.94	0.79	0.80	0.83	0.76	0.80	0.88	0.80	0.93
	Expressive	0.98	0.88	0.82	0.79	0.83	0.84	0.76	0.83	0.91
	Written	—	0.92	0.92	0.89	0.90	0.86	0.92	0.91	0.98
Daily Living Skills	Personal	0.97	0.83	0.74	0.63	0.82	0.80	0.84	0.82	0.97
	Domestic	0.93	0.75	0.79	0.84	0.81	0.77	0.96	0.81	0.89
	Community	0.92	0.83	0.89	0.81	0.79	0.88	0.75	0.83	0.91
Socialization	Interpersonal Relationships	0.95	0.75	0.76	0.73	0.74	0.78	0.66	0.75	0.83
	Play and Leisure Time	0.94	0.85	0.75	0.71	0.80	0.71	0.64	0.75	0.85
	Coping Skills	0.89	0.76	0.81	0.80	0.80	0.83	0.85	0.81	0.87
Motor Skills[c]	Gross	0.98	0.83	—	—	—	—	0.70	0.83	0.89
	Fine	0.96	0.89	—	—	—	—	0.52	0.89	0.94

[a] Rasch ability estimates obtained from individual subdomain calibrations
[b] Weighted to adjust for the unreliability of the subdomains
[c] Ages 0–6 and 50–90

Item Functioning

The last analysis examined whether individual items function in the same way on the two forms. If an item behaves differently depending on the method of administration (semistructured interview versus parent/caregiver rating), it will show differential item functioning (DIF). DIF analysis was run separately on each subdomain, using the WINSTEPS program. The first step was to perform a joint calibration of each subdomain using all items on both forms, in order to obtain a single estimate of each person's ability. The program then separated the items into two groups by format (rating form and interview) and re-estimated each item's difficulty separately for each format, using the ability estimates obtained in the first step. The difference between the two difficulty values for each item was evaluated using the *t*-test. An item was identified as functioning differently on the two forms if *t* was greater than 2.0 and the absolute difference in item difficulties exceeded 0.50 logits. Both conditions needed to be satisfied because with large samples even very small differences can be statistically significant, and research has shown that with tests having more than 20 items, item difficulty differences as large as 0.50 logits have negligible impact on the estimation of person ability (Wright & Douglas, 1975, 1976). Among the 395 items that were compared, 16 items met both criteria for DIF. Two of the subdomains displayed no DIF, five subdomains had one DIF item, and four had more than one DIF item. The Expressive Communication Subdomain had the most DIF items (four).

Collectively, the results from the four analyses—comparisons of mean scores and reliabilities, comparisons of between-form correlations with within-form correlations, and analysis of differential item functioning—demonstrate a high degree of score consistency between the semistructured interview method and the parent/caregiver rating method. Therefore, it was concluded that the raw scores from the two methods could be combined into a single data set that would be used to produce the Vineland–II norms.

Demographic Characteristics of the Norm Sample

The large, representative norm sample of the Vineland–II supports comparisons of the individual's level of functioning with that of his or her age peers. The scales are normed on a national sample of 3,695 individuals aged birth through 90 years. The sample is equally balanced by sex and is representative of the U.S. population in regard to race/ethnicity, community size, geographic region, and socioeconomic status (mother's education level). The U.S. population data were obtained from the *Current Population Survey, March 2001*.

Respondents for the norm sample varied with the age of the individual whose adaptive functioning was being assessed. For individuals aged birth through 18 years, 85 percent of the respondents were mothers, 8 percent were fathers, and 7 percent were grandparents or other legal guardians. Selection of the respondent was not controlled; when both parents were available, they decided which one would complete the interview or rating form. For individuals aged 19 through 25 years, 52 percent of the respondents were mothers, 7 percent were fathers, 8 percent were spouses, and 33 were a

combination of friends, roommates, and siblings. For the individuals aged 26 to 90, 10 percent of the respondents were mothers, 47 percent were spouses, and 43 percent were siblings or adult children.

Age and Sex. Because adaptive behaviors develop most rapidly at young ages, the Vineland–II norm sample contains more individuals per year at the younger ages: 1,325 of the individuals, more than one-third of the entire sample, are aged birth through 5. Also, the sampling plan called for an equal number of females and males in each age group. This goal was essentially achieved, as shown in **Table 6.5**.

Race/Ethnicity. The Vineland–II sample was stratified according to four racial/ethnic groups used by the *Current Population Survey*: African American, Hispanic, White, and Other. The "Other" category includes American Indians, Alaska Natives, Asians, Pacific Islanders, and all other groups not classified within the first three categories. **Table 6.6** compares the norm sample proportion at each age group to the U.S. population proportions, and demonstrates that racial/ethnic groups are well represented at each age.

Socioeconomic Status. For individuals aged birth through 24 years, the educational level of the mother or female guardian served as the measure of socioeconomic status. (If the mother's or female guardian's education level was not available, the father's or male guardian's education level was used.) For individuals 25 and older, socioeconomic status was determined by that individual's highest level of education achieved. Education level is stratified into four groups: eleventh grade or lower; high school graduation or receipt of graduate equivalency diploma (GED); 1 to 3 years of postsecondary education; and a 4-year degree or higher. The representation of the norm sample according to educational level matches that found in the U.S. population (see **Table 6.7**).

Table 6.5 Representation of the Norm Sample, by Age and Sex

		Sex				Total
		Females		Males		
		N	%	*N*	%	*N*
Age	0:0–0:3	38	52.8	34	47.2	72
	0:4–0:7	37	47.4	41	52.6	78
	0:8–0:11	43	50.6	42	49.4	85
	1:0–1:3	46	62.2	28	37.8	74
	1:4–1:7	32	41.6	45	58.4	77
	1:8–1:11	39	46.4	45	53.6	84
	2:0–2:5	52	52.0	48	48.0	100
	2:6–2:11	51	48.6	54	51.4	105
	3:0–3:5	55	51.9	51	48.1	106
	3:6–3:11	50	48.1	54	51.9	104
	4:0–4:5	48	52.2	44	47.8	92
	4:6–4:11	52	48.1	56	51.9	108
Total, ages 0:0–4:11		**543**	**50.0**	**542**	**50.0**	**1,085**
U.S. population,[a] ages 0:0–4:11			**48.8**		**51.2**	
Age	5	120	50.0	120	50.0	240
	6	123	50.2	122	49.8	245
	7	100	50.0	100	50.0	200
	8	100	50.0	100	50.0	200
	9	102	49.8	103	50.2	205
	10	88	50.3	87	49.7	175
	11	102	49.8	103	50.2	205
	12–13	142	49.8	143	50.2	285
	14–15	118	50.2	117	49.8	235
	16–18	107	49.8	108	50.2	215
	19–21	43	50.6	42	49.4	85
Total, ages 5:0–21:11		**1,145**	**50.0**	**1,145**	**50.0**	**2,290**
U.S. population,[a] ages 5:0–21:11			**48.9**		**51.1**	
Age	22–31	55	50.0	55	50.0	110
	32–51	38	50.7	37	49.3	75
	52–71	40	50.0	40	50.0	80
	72–90	27	49.1	28	50.9	55
Total, ages 22:0–90		**160**	**50.0**	**160**	**50.0**	**320**
U.S. population,[a] ages 22:0–90			**52.2**		**47.8**	

[a] U.S. population data from *Current Population Survey, March 2001* [machine-readable data file] conducted by the Bureau of the Census for the Bureau of Labor Statistics

Table 6.6 Representation of the Norm Sample, by Age and Race/Ethnicity

		Race/Ethnicity								Total
		African American		Hispanic		White		Other[a]		
		N	%	*N*	%	*N*	%	*N*	%	*N*
Age	0:0–0:3	10	13.9	21	29.2	37	51.4	4	5.5	72
	0:4–0:7	10	12.9	14	17.9	49	62.8	5	6.4	78
	0:8–0:11	11	12.9	18	21.2	49	57.7	7	8.2	85
	1:0–1:3	15	20.3	19	25.7	37	50.0	3	4.0	74
	1:4–1:7	14	18.2	15	19.5	41	53.2	7	9.1	77
	1:8–1:11	13	15.5	10	11.9	54	64.3	7	8.3	84
	2:0–2:5	13	13.0	20	20.0	58	58.0	9	9.0	100
	2:6–2:11	20	19.0	20	19.0	58	55.3	7	6.7	105
	3:0–3:5	19	17.9	24	22.7	58	54.7	5	4.7	106
	3:6–3:11	15	14.4	19	18.3	60	57.7	10	9.6	104
	4:0–4:5	19	20.6	17	18.5	48	52.2	8	8.7	92
	4:6–4:11	20	18.5	22	20.4	59	54.6	7	6.5	108
Total, ages 0:0–4:11		**179**	**16.5**	**219**	**20.2**	**608**	**56.0**	**79**	**7.3**	**1,085**
U.S. population,[b] ages 0:0–4:11			**15.4**		**20.2**		**58.7**		**5.7**	
Age	5	34	14.2	45	18.7	142	59.2	19	7.9	240
	6	41	16.7	45	18.4	142	58.0	17	6.9	245
	7	32	16.0	40	20.0	116	58.0	12	6.0	200
	8	34	17.0	37	18.5	117	58.5	12	6.0	200
	9	36	17.6	34	16.6	121	59.0	14	6.8	205
	10	28	16.0	34	19.4	101	57.7	12	6.9	175
	11	32	15.6	37	18.0	124	60.5	12	5.9	205
	12–13	49	17.2	50	17.5	166	58.3	20	7.0	285
	14–15	37	15.7	41	17.5	146	62.1	11	4.7	235
	16–18	35	16.3	37	17.2	132	61.4	11	5.1	215
	19–21	13	15.3	15	17.6	53	62.4	4	4.7	85
Total, ages 5:0–21:11		**371**	**16.2**	**415**	**18.1**	**1,360**	**59.4**	**144**	**6.3**	**2,290**
U.S. population,[b] ages 5:0–21:11			**15.6**		**16.8**		**62.2**		**5.4**	
Age	22–31	15	13.6	21	19.1	69	62.7	5	4.6	110
	32–51	9	12.0	10	13.3	52	69.3	4	5.4	75
	52–71	7	8.7	8	10.0	62	77.5	3	3.8	80
	72–90	4	7.3	3	5.5	46	83.6	2	3.6	55
Total, ages 22:0–90		**35**	**10.9**	**42**	**13.1**	**229**	**71.6**	**14**	**4.4**	**320**
U.S. population,[b] ages 22:0–90			**11.6**		**11.1**		**72.5**		**4.8**	

[a] Includes American Indians, Alaska Natives, Asians, Pacific Islanders, and all other groups not classified as African American, Hispanic, or White

[b] U.S. population data from *Current Population Survey, March 2001* [machine-readable data file] conducted by the Bureau of the Census for the Bureau of Labor Statistics

Table 6.7 Representation of the Norm Sample, by Age and Mother's or Individual's Education Level

		Mother's Education Level[a]								Total
		11th Grade or Less		High School Graduate or GED		1–3 Years of College		4-Year Degree or Higher		
		N	%	*N*	%	*N*	%	*N*	%	*N*
Age	0:0–0:3	9	12.5	20	27.8	23	31.9	20	27.8	72
	0:4–0:7	21	26.9	13	16.7	22	28.2	22	28.2	78
	0:8–0:11	18	21.2	27	31.7	23	27.1	17	20.0	85
	1:0–1:3	19	25.7	24	32.4	14	18.9	17	23.0	74
	1:4–1:7	15	19.5	23	29.8	21	27.3	18	23.4	77
	1:8–1:11	11	13.1	21	25.0	25	29.8	27	32.1	84
	2:0–2:5	11	11.0	35	35.0	26	26.0	28	28.0	100
	2:6–2:11	23	21.9	28	26.7	30	28.6	24	22.8	105
	3:0–3:5	18	17.0	30	28.3	27	25.5	31	29.2	106
	3:6–3:11	13	12.5	34	32.7	35	33.6	22	21.2	104
	4:0–4:5	13	14.1	32	34.8	27	29.4	20	21.7	92
	4:6–4:11	15	13.9	36	33.3	32	29.6	25	23.2	108
Total, ages 0:0–4:11		**186**	**17.1**	**323**	**29.8**	**305**	**28.1**	**271**	**25.0**	**1,085**
U.S. population,[b] ages 0:0–4:11			**16.3**		**30.2**		**28.9**		**24.6**	
Age	5	30	12.5	68	28.3	78	32.5	64	26.7	240
	6	36	14.7	77	31.4	74	30.2	58	23.7	245
	7	28	14.0	63	31.5	64	32.0	45	22.5	200
	8	29	14.5	61	30.5	66	33.0	44	22.0	200
	9	22	10.7	68	33.2	65	31.7	50	24.4	205
	10	27	15.4	54	30.9	54	30.9	40	22.8	175
	11	28	13.7	69	33.6	60	29.3	48	23.4	205
	12–13	39	13.7	92	32.3	85	29.8	69	24.2	285
	14–15	34	14.5	78	33.2	73	31.0	50	21.3	235
	16–18	29	13.5	72	33.5	65	30.2	49	22.8	215
	19–21	10	11.8	32	37.6	23	27.1	20	23.5	85
Total, ages 5:0–21:11		**312**	**13.6**	**734**	**32.1**	**707**	**30.9**	**537**	**23.4**	**2,290**
U.S. population,[b] ages 5:0–21:11			**14.9**		**32.7**		**30.0**		**22.5**	
Age	22–31	11	10.0	34	30.9	32	29.1	33	30.0	110
	32–51	10	13.3	25	33.3	17	22.7	23	30.7	75
	52–71	14	17.5	28	35.0	18	22.5	20	25.0	80
	72–90	17	30.9	19	34.5	10	18.2	9	16.4	55
Total, ages 22:0–90		**52**	**16.2**	**106**	**33.1**	**77**	**24.1**	**85**	**26.6**	**320**
U.S. population,[b] ages 22:0–90			**16.0**		**32.8**		**25.4**		**25.8**	

[a] For ages 0 through 24, if mother's or female guardian's education level was not reported, father's or male guardian's education level was used. Participant's education level was used for ages 25 and above.

[b] U.S. population data from *Current Population Survey, March 2001* [machine-readable data file] conducted by the Bureau of the Census for the Bureau of Labor Statistics

Table 6.9 Representation of the Norm Sample, by Geographic Region and Mother's Education Level

		Mother's Education Level[a]											
		11th Grade or Less			High School Graduate or GED			1–3 Years of College			4-Year Degree or Higher		
		Sample[b]		U.S. Pop[c]	Sample[b]		U.S. Pop[c]	Sample[b]		U.S. Pop[c]	Sample[b]		U.S. Pop[c]
		N	%	%	*N*	%	%	*N*	%	%	*N*	%	%
Geographic Region	Northeast	40	1.1	2.7	184	5.0	7.1	212	5.7	4.6	210	5.7	5.6
	North Central	96	2.6	2.6	199	5.4	7.6	229	6.2	6.1	219	5.9	5.4
	South	216	5.9	6.4	484	13.1	11.8	407	11.0	9.3	291	7.9	8.3
	West	198	5.4	4.0	296	8.0	6.1	241	6.5	6.7	173	4.7	5.7
	Total	550	15.0	15.7	1,163	31.5	32.6	1,089	29.4	26.7	893	24.2	25.0

[a] For ages 0 through 24, if mother's or female guardian's education level was not reported, father's or male guardian's education level was used. Participant's education level was used for ages 25 and above.
[b] Percentages are based on total sample size of 3,695
[c] U.S. population data from *Current Population Survey, March 2001* [machine-readable data file] conducted by the Bureau of the Census for the Bureau of Labor Statistics

Geographic Region and Race/Ethnicity. The distribution of race/ethnicity within each geographic region closely matches the corresponding distributions in the U.S. population, as shown in **Table 6.10**.

Table 6.10 Representation of the Norm Sample, by Geographic Region and Race/Ethnicity

		Race/Ethnicity											
		African American			Hispanic			White			Other[a]		
		Sample[b]		U.S. Pop[c]	Sample[b]		U.S. Pop[c]	Sample[b]		U.S. Pop[c]	Sample[b]		U.S. Pop[c]
		N	%	%	*N*	%	%	*N*	%	%	*N*	%	%
Geographic Region	Northeast	71	1.9	2.3	58	1.6	1.9	506	13.7	14.7	11	0.3	0.8
	North Central	46	1.2	2.4	57	1.5	0.9	538	14.6	17.6	102	2.8	0.6
	South	410	11.1	7.0	199	5.4	4.8	744	20.1	23.3	45	1.2	1.0
	West	58	1.6	1.2	362	9.8	5.6	409	11.1	13.3	79	2.1	2.6
	Total	585	15.8	12.9	676	18.3	13.2	2,197	59.5	68.9	237	6.4	5.0

[a] Includes American Indians, Alaska Natives, Asians, Pacific Islanders, and all other groups not classified as African American, Hispanic, or White
[b] Percentages are based on total sample size of 3,695
[c] U.S. population data from *Current Population Survey, March 2001* [machine-readable data file] conducted by the Bureau of the Census for the Bureau of Labor Statistics

Race/Ethnicity and Mother's Education Level. As **Table 6.11** shows, the distribution of mother's education level within each racial/ethnic group closely matches the corresponding distributions in the U.S. population.

Table 6.11 Representation of the Norm Sample, by Race/Ethnicity and Mother's Education Level

		Mother's Education Level[a]											
		11th Grade or Less			High School Graduate or GED			1–3 Years of College			4-Year Degree or Higher		
		Sample[b]		U.S. Pop.[c]	Sample[b]		U.S. Pop.[c]	Sample[b]		U.S. Pop.[c]	Sample[b]		U.S. Pop.[c]
		N	%	%	*N*	%	%	*N*	%	%	*N*	%	%
Race/Ethnicity	African American	133	3.6	2.4	186	5.0	4.6	200	5.4	3.6	66	1.8	1.9
	Hispanic	223	6.0	5.5	253	6.9	3.6	143	3.9	2.3	57	1.5	1.2
	White	128	3.5	7.1	649	17.6	23.2	700	18.9	19.8	720	19.5	20.0
	Other[d]	66	1.8	0.7	75	2.0	1.2	46	1.2	1.1	50	1.4	1.9
	Total	550	14.9	15.7	1,163	31.5	32.6	1,089	29.4	26.8	893	24.2	25.0

[a] For ages 0 through 24, if mother's or female guardian's education level was not reported, father's or male guardian's education level was used. Participant's education level was used for ages 25 and above.
[b] Percentages are based on total sample size of 3,695
[c] U.S. population data from *Current Population Survey, March 2001* [machine-readable data file] conducted by the Bureau of the Census for the Bureau of Labor Statistics
[d] Includes American Indians, Alaska Natives, Asians, Pacific Islanders, and all other groups not classified as African American, Hispanic, or White

Educational Placement. Educational placement was used as a stratification variable to ensure proportional representation of children identified as having educational, psychological, or physical conditions or classifications. The following are categories of children classified as exceptional, obtained from the *Twenty-Sixth Annual Report to Congress on the Implementation of the Individuals with Disabilities Act* [Annual Report] (2004):

- attention-deficit/hyperactivity disorder
- emotional/behavioral disturbance
- learning disability
- mental retardation
- speech/language impairment
- other

Included in the "other" category were individuals with hearing, visual, orthopedic, or other health impairments; multiple impairments; or deafness, blindness, autism, or traumatic brain injury.

Information about educational placement in the Vineland–II norm sample was collected on both the participation and test record forms. Some children have more than one classification. The match of the norm sample to the U.S. population of school-age children is indicated in **Table 6.12**. The age bands for each classification vary slightly to most closely match the figures provided by the United States Department of Education.

Table 6.12 Representation of the Norm Sample, by Educational Placement

	Sample		U.S. School-Age Population[a]
	N	%	%
Attention-Deficit/ Hyperactivity Disorder[b]	64	3.3	4.0[c]
Emotional/Behavioral/Serious Emotional Disorder[d]	27	1.4	0.9
Learning Disability[d]	90	4.7	5.6
Mental Retardation[e]	19	0.7	0.8
Noncategorical/Developmental Delay[e]	28	1.9	1.0
Speech/Language Impairment[d]	76	4.0	2.3
Other[e,f]	45	1.7	1.2

[a] Data from the *Twenty-Sixth Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act*; United States Department of Education, Office of Special Education and Rehabilitative Services, Office of Special Education Programs, 2004. Retrieved from http://www.ideadata.org/tables26th/ar_aa7.htm
[b] Ages 6–18
[c] Data from *Mental Health: A Report of the Surgeon General*; December 1999; http://www.surgeongeneral.gov/library/mentalhealth/home.html
[d] Ages 6–17
[e] Ages 3–21
[f] Includes hearing, visual, orthopedic, or other health impairments; multiple disabilities, or deafness, blindness, autism, or traumatic brain injury

Table 6.13 reports the proportions of individuals aged 3 through 18 years with a disability in both the Vineland–II sample and the U.S. population. The proportion of school-age children with disabilities in the Vineland–II norm sample is similar to that reported in the 2004 annual report.

Table 6.13 Representation of the Norm Sample, Ages 3–18, by Disability Status

Age	Sample		U.S. Population[a]
	N	%	%
3	14	6.7	3.7
4	18	9.0	6.3
5	20	8.3	6.6
6	24	9.8	8.4
7	24	12.0	9.6
8	27	13.5	10.9
9	25	12.2	11.7
10	27	15.4	12.4
11	30	14.6	13.1
12–13	37	13.0	13.4
14–15	35	14.9	12.4
16–18	23	10.7	8.4

[a] Data from the *Twenty-Sixth Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act;* United States Department of Education, Office of Special Education and Rehabilitative Services, Office of Special Education Programs, 2004. Retrieved from http://www.ideadata.org/tables26th/ar_aa7.htm

Community Size. The standardization sample was collected from three types of communities: urban, suburban, and rural. The percentage of the sample from each community size closely matched that of the U.S. population, as shown in **Table 6.14**.

Table 6.14 Standardization Sites by Community Size

		N Sites	%	U.S. Population %[a]
Community Type	Urban	75	33.6	29.2
	Suburban	84	37.7	35.1
	Rural	64	28.7	35.7
	Total	223	100.0	100.0

[a] Figures from *Market Data Retrieval,* 2004

Data Analysis

After standardization data collection was completed, the development team conducted analyses of the data in order to develop the maladaptive scales, evaluate items, devise final scoring rules, and develop norms.

Development of the Maladaptive Scales

Exploratory factor analyses using the principal components method with oblique rotation were applied to the 36 maladaptive test items to determine whether the items formed smaller homogeneous sets. This exploration used the data from 5,176 standardization cases for individuals aged three through 90, each with complete scores on the maladaptive items. The sample was subdivided into three age groups: ages 3 through 11 years, 12 through 18, and 19 through 90. A stepwise approach was used to determine the number of interpretable components in each age group. Beginning with a one-component solution, an additional component was added until the last component had fewer than four items with loadings greater than |.50|. This condition was met in all three age groups with a three-component solution.

Next, the three-component solutions for the three age groups were evaluated and their results synthesized. A list of items that defined each component was generated. An item was considered part of a component if it had a loading of at least |.50| on that component, and had no loadings exceeding |.30| on either of the other two components. Twenty-eight items met these conditions in at least one of the three age groups; 11 of these items formed the first component, 12 items formed the second component, and five formed the third component.

In the third step, Cronbach's alpha was computed for all three item sets at each age group. The items making up the first two components had reasonably high alpha coefficients, but the five items constituting the third component did not. Therefore, the item set that formed the third component was not analyzed further.

In the final step, the item sets for the first two components were analyzed separately using the partial-credit model of the WINSTEPS program. For these analyses the data from the three age groups were recombined into a single group. Item fit was evaluated using a fit index produced by the WINSTEPS program that is analogous to the biserial correlation between the item score and the total score. Two items with poor fit on the second factor were identified and removed from further analysis. The final sets of items are shown in **Table 6.15**. Based on the content of the items, the sets were labeled Internalizing and Externalizing.

Table 6.15 Final Item Sets for the Internalizing and Externalizing (Maladaptive) Behavior Scales

Internalizing Behaviors	Externalizing Behaviors
Is overly dependent	Is impulsive
Avoids others and prefers to be alone	Has temper tantrums
Has eating difficulties	Intentionally disobeys or defies those in authority
Has sleeping difficulties	Taunts, teases, or bullies
Refuses to go to work or school because of fear, feelings of rejection, or isolation	Is inconsiderate or insensitive toward others
Is overly anxious or nervous	Lies, cheats, or steals
Cries or laughs too easily	Is physically aggressive
Has poor eye contact	Is stubborn or sullen
Is sad for no clear reason	Says embarrassing things or asks embarrassing questions in public
Avoids social interaction	Behaves inappropriately at the urging of others
Lacks energy or interest in life	

Item Analysis

After being reviewed for accuracy of administration and scoring, cases were keyed and verified. The only cases accepted for further analysis were those in which all age-appropriate subdomains were administered. The following four steps comprised the item analysis stage.

The first step was to apply a series of validity checks to the items. Algorithms were written to identify whether items forming a hierarchy were scored in accordance with the hierarchy. For example, the items, "Listens to story for 30 minutes," "Listens to story for 15 minutes," and "Listens to story for 5 minutes" form a hierarchy. If an individual was given the maximum score of 2 on "Listens to story for 30 minutes," the individual should also have been scored 2 on the other two items in the hierarchy. There are many such hierarchies in the Vineland–II. The validity check indicated that items were generally, but not always, scored in accordance with the hierarchy, so a series of rescoring algorithms were written to rescore items. An item lower in a hierarchy was rescored to 2 only if a higher item in the hierarchy was scored 2. If higher items were scored 1 or 0, no rescoring was done. No instances were found of an item lower in the hierarchy being scored 0 and a higher item being scored 1.

The second step was to perform a Rasch calibration of the items using the partial-credit model of the WINSTEPS program (Linacre, 2003). The Rasch calibration was used to obtain item difficulty estimates and to evaluate item fit (i.e., correlation with performance on the total subdomain). Item difficulty estimates were used to guide decisions about the final item sequence for the Vineland–II Survey Interview Form and Parent/Caregiver Rating Form. For this process items were initially sequenced within each subdomain in accordance with item difficulty. That sequence was reviewed to determine if it corresponded with expectations about developmental progression on particular behaviors. Other sources, including the Vineland ABS and *By the Ages: Behavior and development of Children Pre-Birth through Eight* (Allen & Marotz, 2000), were also consulted. There were very few instances in which the sequence was adjusted, and adjustments generally were made between items with very similar difficulty estimates.

The measure of item fit compares the expected probability of an item score with the observed probability of the score, at various levels of person ability. It serves a similar function as the biserial correlation between item and subdomain scores. The fit index has an expected value of 1.0, with higher values indicating a greater amount of unmodeled random error, indicating poor fit (analogous to low item-total biserial correlations). Suspect items were reviewed, and the potential degrading effect on reliability of retaining a poor fitting item was balanced against the unique contribution the item might provide for program planning in reaching a decision on whether to retain the item.

Development of Final Scoring Rules

The third step in item analysis was to impute a score for each item not scored in standardization. According to the administration rules used in standardization, items before an individual's start point were not scored if the individual obtained a score of 2 on the first three items. On rare occasions an item after the start point was also not scored, either because the respondent did not observe the behavior or because an examiner or respondent missed the item. Predicted scores were generated for all non-scored items by applying the partial-credit model to the person ability and item difficulty estimates obtained in step two. The predicted scores were created by first calculating the probability of a score of 0, 1, or 2 (based on the item difficulty and person ability), and then converting the probabilities to an item score by comparing them to a randomly generated, uniformly distributed probability matrix. If the difference between the predicted probability and the randomly generated probability exceeded a specific threshold, the probability was converted to a 2; if the difference exceeded the next highest threshold, the probability was converted to a 1; and if the difference

did not exceed either threshold, it was converted to a 0. Imputed values were used to score only those items that were missing a score. The result of imputation was the formation of a complete item set for every individual in the standardization sample.

The purpose of the final step in item analysis was to explore the effects of applying various basal and ceiling rules. Using the complete data obtained in the prior step, two rules were compared: (1) the combination of three consecutive items scored 2 and three consecutive items scored 0, and (2) the combination of four consecutive items scored 2 and four consecutive items scored 0. All items below the basal item were scored 2, and all items above the ceiling were scored 0. By applying these rules, it was possible that items that had been scored one way in standardization would be scored differently in this process. So each basal and ceiling combination was evaluated according to the frequency of the number of items below the basal item and above the ceiling item that changed score. The percent of cases with item score changes varied by subdomain and age. Generally, individuals younger than 3 or older than 10 had fewer score changes than individuals between ages 3 and 10. For individuals between ages 3 and 10, when the 4/4 basal/ceiling rule was used, the percentage of cases with two or fewer item score changes ranged from 74 percent for the Community Subdomain to 100 percent for the Receptive Subdomain. In half of the cases the item score increased, and in the other half it decreased, so application of the rule had no biasing affect on the subdomain raw score. Based on these analyses, the 4/4 basal/ceiling rule was chosen for the final version because it resulted in fewer item score changes.

Once the basal and ceiling rule was determined, it was applied to the standardization cases, and subdomain raw scores were computed for all cases. These subdomain raw scores were used to generate age-based norms.

Norms Development

Development of the subdomain, domain, and Adaptive Behavior Composite norms was done in several stages. Raw subdomain scores were input to generate subdomain *v*-scale scores. The sum of the subdomain *v*-scale scores within a domain was input to generate the domain standard scores, and the sum of the domain standard scores was input to generate the Adaptive Behavior Composite standard score. Each stage involved converting the input scores into another metric using a normalization algorithm, and then hand-smoothing the results to remove the effects of sampling variation. The analysis was done using the 20 age groups described in the demographic tables in this chapter, with the birth through 1 year age group subdivided into four groups at three-month intervals.

Subdomain *v*-Scale Scores. The conversion of subdomain raw scores to *v*-scale scores began with inputting subdomain raw scores. The first step was to compute the mean, standard deviation, skewness, and kurtosis of the raw score distribution in each of the 23 age groups. Line graphs of the 23 means against age were drawn separately for each subdomain, and a smooth line was traced through the mean if it deviated from a smooth curve. In a similar fashion, the standard deviations across the 23 age groups were also plotted and hand-smoothed if the line connecting adjacent means deviated precipitously from a smooth curve. The purpose of the smoothing was to eliminate inconsistencies occurring as a result of imperfect sampling. Even with samples of 200, it is possible that sampling variation could visibly affect the results. Very little hand-smoothing was needed for the means, but somewhat larger adjustments were required for the standard deviations. This is not surprising, as the standard deviation is more influenced by outliers than is the mean for samples of this size.

A Johnson-curve-fitting program (Hill, I. D., Hill, R., Holder, R. L. 1976) was used to convert the raw scores into the *v*-scale score metric. The Johnson-curve program uses as input the first four moments of the distribution. For the Vineland–II, this included the smoothed means and standard deviations and the unsmoothed skewness and kurtosis values for each age group. The output from the Johnson-curve-fitting program was then hand-smoothed to remove any additional effects due to sampling variation. To check for any bias from hand-smoothing or Johnson-curve fitting, the smoothed *v*-scale scores were compared to scores obtained by converting the raw subdomain scores to percentile ranks, translating the percentile to *z*-scores, and using a linear transformation to convert the *z*-scores to a *v*-scale metric. The matrix of the residual differences between the two sets of scores was reviewed to ensure that scores were not systematically higher or lower than the observed data, and to ensure that the deviation from observed scores was not excessive. Minor adjustments were made based on analysis of residuals.

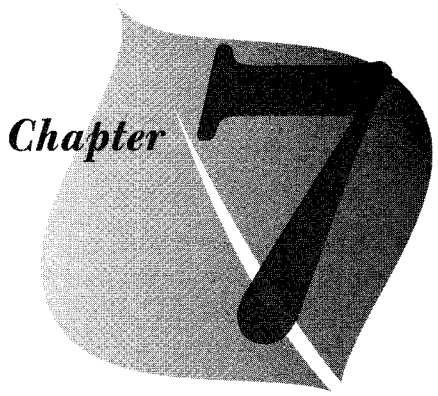
In the next step, the raw score to *v*-scale score conversion for the 23 age groups was expanded to include 94 age groups. The 94 age groups were obtained by dividing the 23 original groups into smaller age intervals. Linear interpolation was used to fill in the gaps between adjacent age groups, linear extrapolation was used to extend the norms beyond the lowest and highest age

groups, and minor hand adjustments were made to remove obvious inconsistencies.

Domain and Adaptive Behavior Composite Standard Scores. Raw subdomain scores were converted to *v*-scale scores for the entire standardization sample. The mean and standard deviation of the sum of subdomain *v*-scale scores in each domain were computed for each of the 23 age groups. Inspection of the values indicated that certain age groups could be combined because the distributions of *v*-scale score sums were very similar. The mean, standard deviation, skew, and kurtosis of the eight newly-formed age groups were input into the Johnson-curve-fitting program. The results were entered into a table converting the sum of subdomain *v*-scale scores to domain standard scores. This procedure was also used to convert the sum of the domain standard scores to the Adaptive Behavior Composite standard score, with the only difference being that two age groups were used: birth through 6 years, and 7 through 90.

Maladaptive Behavior Subscale Scores. An approach similar to that used for the Vineland–II subdomains was used to generate the maladaptive behavior scales, with the exception that hand-smoothing and interpolation were not done. First, the mean, standard deviation, skew, and kurtosis were computed for the Internalizing and Externalizing scale and the Maladaptive Behavior Index in five age groups: 3 through 5 years, 6 through 11, 12 through 18, 19 through 39, and 40 through 90. The four moments were used as input into the Johnson-curve-fitting program, and the output became the conversion table for transforming maladaptive scale raw scores to *v*-scale scores.

Reliability



Reliability refers to the dependability or reproducibility of test scores. Scores on all tests are affected by random and unpredictable sources of error which can be attributed to inconsistency of human behavior and imperfections in test content. On the Vineland–II, the respondent may be inconsistent in recalling specific behavior of the individual, uncertain about the meaning of an item, or unaware of certain aspects of the individual's behavior. Also, the interviewer may be inconsistent in how he or she conducts interviews, and interviewers vary in their skill and thoroughness. These and other potential sources of measurement error can influence the reliability of Vineland–II scores.

For test scores to be valid, they must be relatively resistant to measurement errors that could cause scores to change on a different administration. Errors of measurement are minimized by employing standardized administration procedures, using objective scoring rules, and ensuring that items are clearly written and measure readily observable behaviors that are valid indicators of their intended constructs. Data presented in this chapter regarding the reliability of Vineland–II scores demonstrate the extent to which errors of measurement were minimized through the development and standardization process.

A variety of statistical methods may be used to evaluate the impact of measurement error on test score reliability. This chapter presents results from the analysis of four potential sources of error.

- Internal-consistency reliability: the extent to which items on a subdomain or domain reflect a common underlying dimension of adaptive behavior
- Test-retest reliability: the consistency of scores obtained at different times from the same respondent using the same administration method
- Interinterviewer reliability: the consistency of Survey Interview Form scores obtained from the same respondent by different examiners
- Interrater reliability: the consistency of scores obtained by the same method and examiner, but from different respondents who may have different levels of familiarity with the individual's behavior

The *Standards for Educational and Psychological Testing* (APA/AERA/NCME, 1999) requires that reliability data be reported for each score that will be used for interpretation. In the Vineland–II, this includes scores on the subdomains, domains, Adaptive Behavior Composite, maladaptive subscales, and Maladaptive Behavior Index. At ages where subdomain normative data are not reported, reliabilities of those subdomains are also not reported.

Subdomains and Domains

Internal Consistency

There are many ways to estimate internal consistency reliability. A common method, and the one used for the Vineland–II, is the *split-half* method. Typically, items within a subdomain are separated into two halves that are matched on item content and difficulty—essentially, two parallel brief forms of the subdomain. The Pearson correlation between scores on the halves is adjusted by the Spearman-Brown formula to estimate the internal-consistency reliability of the entire subdomain.

For this analysis, data from the Survey Interview Form and Parent/Caregiver Rating Form were combined. In order to avoid artificially inflating the split-half correlations, all items in a subdomain that belonged to the same content category were kept together in the same half. Because the number of content categories in a subdomain typically is small, this requirement meant that the halves often could not be closely similar in their item difficulties, thus lowering the correlations to some degree. As a result, the Vineland–II internal-consistency reliabilities should be considered to be conservative estimates of true reliabilities.

Because of the basal and ceiling rules employed during Survey Interview Form administration, not all items have scores. Therefore, the total score for each half was the

ability score based on the item difficulties generated by the Rasch calibration of each subdomain. This method avoids the bias that would be introduced if scores had been assigned to unadministered items, as would be required if raw scores were correlated or if an alternative method such as coefficient alpha were employed.

Table 7.1 presents the internal-consistency reliabilities of the Vineland–II subdomains and domains. Overall, the subdomain reliability estimates are moderate to high, with approximately 75 percent having a value of .75 or greater. Reliabilities tend to be higher for children and for individuals aged 72 through 90 than for teenagers and younger adults. At ages birth through 5, average reliabilities are in the mid .80s for subdomains in the Communication, Socialization, and Motor Skills Domains and around .80 for the Daily Living Skills subdomains. At ages 6 through 11 and 72 through 90, average subdomain reliabilities are in the low .80s for almost all domains.

Subdomain reliabilities are somewhat lower at ages 32 through 71, with average values in the .70s. These are the ages at which Vineland–II scores tend to be the highest. In the revision process, important consideration was given to extending the range of the instrument beyond age 18, and content was added to help ensure adequate reliability for adults. The lower reliability at these ages is a direct result of a ceiling in these subdomains: a substantial proportion of the individuals in the norm sample obtain the maximum subdomain raw score. This restriction of score variability limits reliability, because the subdomain does not differentiate among the people scoring at the maximum. At older ages, score variability increases because adaptive skills tend to decline, and reliability increases.

Internal-consistency reliabilities of the domain and Adaptive Behavior Composite scores were computed on the basis of the subdomain internal-consistency reliabilities, using Nunnally's (1978, p. 248) formula. Reliability coefficients for domains are generally very high, with most being in the upper .80s to low .90s. Slightly lower reliability coefficients were obtained for adults aged 32 through 71, for the reason discussed in the preceding section. Except at that age range, reliability coefficients for the Adaptive Behavior Composite are very high, in the mid .90s.

It should be noted that the reported levels of internal consistency, with few exceptions, are clinically significant in the good to excellent range, by the criteria of Cicchetti (1994) in which: <.70 = Poor; .70–.79 = Fair; .80–.89 = Good; and > .90 = Excellent.

Table 7.1 Internal Consistency: Split-Half Reliability Coefficients for Domains, Subdomains, and Adaptive Behavior Composite, by Age

Age	*N*	Communication Domain	Receptive	Expressive	Written	Daily Living Skills Domain	Personal	Domestic	Community	Socialization Domain	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Motor Skills Domain[a]	Gross[a]	Fine[a]	Adaptive Behavior Composite[b]
0	235	.88	.77	.89	—	.79	.79	—	—	.91	.88	.83	—	.93	.92	.87	.95
1	235	.94	.86	.94	—	.88	.85	.72	.73	.92	.87	.87	.76	.92	.91	.84	.97
2	205	.94	.83	.96	—	.92	.87	.78	.80	.95	.89	.83	.88	.91	.87	.85	.98
3	210	.92	.81	.94	.76	.90	.87	.73	.74	.95	.87	.84	.90	.90	.81	.86	.97
4	200	.91	.74	.92	.82	.90	.76	.79	.80	.93	.86	.79	.87	.89	.81	.87	.97
5	240	.92	.78	.91	.87	.91	.79	.80	.85	.93	.84	.78	.89	.83	.69	.82	.97
6	245	.93	.79	.90	.88	.93	.79	.85	.90	.95	.90	.83	.93	.87	.78	.82	.97
7	200	.94	.80	.92	.84	.92	.76	.83	.88	.93	.85	.78	.89	—	—	—	.97
8	200	.93	.76	.87	.86	.93	.76	.88	.86	.94	.86	.78	.90	—	—	—	.97
9	205	.94	.80	.90	.86	.91	.71	.86	.82	.92	.85	.74	.86	—	—	—	.97
10	175	.91	.68	.86	.84	.89	.67	.85	.76	.92	.82	.77	.87	—	—	—	.96
11	205	.89	.70	.80	.82	.88	.65	.84	.70	.89	.76	.68	.83	—	—	—	.95
12–13	285	.91	.75	.85	.84	.90	.69	.85	.81	.90	.82	.71	.82	—	—	—	.96
14–15	235	.87	.71	.76	.76	.85	.61	.78	.72	.88	.78	.74	.82	—	—	—	.94
16–18	215	.90	.80	.80	.79	.86	.68	.72	.77	.89	.82	.75	.76	—	—	—	.94
19–21	85	.93	.83	.86	.85	.90	.76	.84	.72	.86	.83	.50	.78	—	—	—	.96
22–31	110	.80	.50	.73	.70	.88	.61	.83	.85	.88	.72	.72	.89	—	—	—	.93
32–51	75	.71	.28	.66	.59	.79	.58	.67	.75	.78	.83	.49	.69	—	—	—	.86
52–71	80	.75	.26	.78	.72	.79	.54	.60	.68	.84	.73	.63	.79	.70[d]	.75[d]	.42[d]	.91
72–90	55	.93	.90	.95	.74	.94	.91	.81	.88	.90	.79	.88	.77	.83	.90	.60	.97
Mean[c]																	
Ages 0–5		.92	.80	.93	.82	.89	.83	.77	.79	.93	.87	.83	.87	.90	.85	.85	.97
Ages 6–11		.93	.76	.88	.85	.91	.73	.85	.83	.93	.85	.77	.88	.87	.78	.82	.97
Ages 12–18		.89	.76	.81	.80	.87	.66	.79	.77	.89	.81	.73	.80	—	—	—	.95
Ages 19–51		.84	.59	.76	.73	.86	.66	.79	.78	.84	.80	.58	.80	—	—	—	.93
Ages 52–90		.87	.70	.89	.73	.89	.79	.72	.80	.87	.76	.79	.78	.77	.84	.52	.95

Note: Split-half reliability coefficients are corrected for half-test length by the Spearman-Brown formula.

[a] Ages 0–6 and 50–90

[b] Adaptive Behavior Composite reliability coefficients were computed using the formula provided by Nunnally (1978, p. 248).

[c] Using Fisher's *z* transformation

[d] Includes ages 50–51

Standard Error of Measurement

Whereas internal-consistency reliabilities are valuable for comparing the accuracy of different tests, when they are transformed into a different statistic, the standard error of measurement (*SEM*), they acquire a practical value in test score interpretation because *SEMs* are expressed in the test score metric. The *SEM* may be thought of as the average amount of measurement error in a score, that is, the average amount by which the observed test score differs from the true score (the score the person would obtain if the test were perfectly accurate). Standard errors of measurement, based on internal-consistency reliabilities, are presented in **Table 7.2.** Subdomain *SEMs* generally range from about 1 to 1½ *v*-scale points, domain *SEMs* generally range from about 4 to 5½ standard score points, and the Adaptive Behavior Composite *SEM* is about 3½ to 4 standard score points.

Standard errors of measurement are useful for creating confidence intervals, which are score ranges that have a specified probability of including the individual's true score. When applying the 95 percent confidence band to a subdomain, the interval would generally extend about 2 to 3 *v*-scale points above and below the observed score. For example, for an individual in the 32 through 51 age group with a Play and Leisure Time Subdomain *v*-scale score of 12, the 95 percent confidence band would range from 10 to 14. Tables C.1 and C.2 in Appendix C contain the 85 percent, 90 percent, and 95 percent confidence-interval values for the subdomains and the domains and Adaptive Behavior Composite, respectively.

Test-Retest Reliability

Test-retest reliability is a measure of the stability of scores from the same respondent on the same form over a short time interval, often less than one month. It is influenced by variations in the individual's behavior, and by random fluctuations in how the examiner conducts the interview and how the respondent describes or rates that behavior.

To evaluate the test-retest reliability of the Vineland–II, a study was conducted using 414 respondents from the standardization sample who agreed to complete a second interview session or rating form. Demographic characteristics of the sample (and remaining reliability studies) are presented in **Table 7.3.** About half of the individuals were rated both times using the Survey Interview Form and the other half using the Parent/Caregiver Rating Form. The data from both forms were then combined. When the Survey Interview Form was used, the same examiner interviewed the respondent on both occasions. The interval between occasions ranged from 13 to 34 days.

Table 7.2 Standard Errors of Measurement for Domains, Subdomains, and Adaptive Behavior Composite, by Age

Age	*N*	Communication Domain	Receptive	Expressive	Written	Daily Living Skills Domain	Personal	Domestic	Community	Socialization Domain	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Motor Skills Domain[a]	Gross[a]	Fine[a]	Adaptive Behavior Composite[b]
0	235	5.16	1.39	0.86	—	6.87	1.24	—	—	4.50	0.94	1.15	—	3.97	0.74	0.94	3.04
1	235	3.43	0.97	0.61	—	5.20	0.97	1.27	1.56	4.21	0.97	1.05	1.52	4.02	0.69	1.08	2.55
2	205	3.65	1.24	0.58	—	4.24	1.08	1.45	1.39	3.35	1.03	1.20	1.04	4.53	1.01	1.16	2.25
3	210	4.30	1.31	0.73	1.57	4.71	1.08	1.56	1.38	3.38	1.08	1.20	0.92	5.06	1.18	1.09	2.74
4	200	4.26	1.53	0.85	1.23	4.74	1.57	1.33	1.21	3.97	1.09	1.37	1.08	5.14	1.22	1.05	2.63
5	240	3.90	1.41	0.90	1.01	4.26	1.42	1.12	1.12	3.76	1.08	1.36	0.96	6.27	1.45	1.23	2.51
6	245	4.15	1.47	1.08	0.97	4.15	1.42	1.12	0.95	3.44	0.98	1.28	0.82	5.19	1.08	1.23	2.68
7	200	4.29	1.34	1.02	1.12	4.13	1.27	1.11	1.04	4.26	1.05	1.41	1.03	—	—	—	2.67
8	200	4.21	1.32	1.23	1.09	4.18	1.42	1.14	1.05	3.89	1.05	1.41	0.98	—	—	—	2.60
9	205	4.09	1.21	1.14	1.16	4.59	1.62	1.16	1.10	4.36	1.01	1.53	1.20	—	—	—	2.55
10	175	4.50	1.41	1.16	1.24	4.71	1.61	1.24	1.27	4.30	1.19	1.39	1.15	—	—	—	3.00
11	205	4.84	1.31	0.98	1.19	5.16	1.66	1.20	1.42	4.91	1.13	1.58	1.24	—	—	—	3.35
12–13	285	4.50	1.15	0.97	1.16	4.93	1.61	1.12	1.22	4.84	1.06	1.62	1.32	—	—	—	3.10
14–15	235	5.30	1.24	1.22	1.22	5.77	1.69	1.31	1.43	5.37	1.36	1.43	1.32	—	—	—	3.58
16–18	215	4.30	0.76	0.94	1.05	5.46	1.64	1.32	1.39	4.61	1.32	1.30	1.32	—	—	—	3.82
19–21	85	3.76	0.66	0.94	1.05	5.09	1.32	1.24	1.53	4.49	1.07	1.41	1.22	—	—	—	3.08
22–31	110	4.34	0.85	0.68	1.10	4.61	1.25	0.91	1.01	4.43	1.06	0.95	0.93	—	—	—	4.02
32–51	75	6.19	1.53	0.99	1.22	4.58	1.10	1.15	1.00	4.64	0.82	1.29	1.00	—	—	—	3.97
52–71	80	5.35	1.81	0.80	1.16	5.36	1.42	1.26	1.13	4.76	1.14	1.34	0.87	6.30[c]	1.10[c]	1.45[c]	4.23
72–90	55	3.44	0.63	0.47	1.27	3.40	0.66	1.05	0.69	4.30	1.19	0.83	1.06	5.69	0.85	1.52	2.48
Mean																	
Ages 0–5		4.12	1.31	0.76	1.27	5.00	1.23	1.35	1.33	3.86	1.03	1.22	1.10	4.83	1.05	1.09	2.62
Ages 6–11		4.35	1.34	1.10	1.13	4.49	1.50	1.16	1.14	4.19	1.07	1.43	1.07	5.19	1.08	1.23	2.81
Ages 12–18		4.70	1.05	1.04	1.14	5.39	1.65	1.25	1.35	4.94	1.25	1.45	1.32	—	—	—	3.50
Ages 19–51		4.76	1.01	0.87	1.12	4.76	1.22	1.10	1.18	4.52	0.98	1.22	1.05	—	—	—	3.69
Ages 52–90		4.40	1.22	0.64	1.22	4.38	1.04	1.16	0.91	4.53	1.17	1.09	0.97	6.00	0.98	1.49	3.36

Note: Split-half reliability coefficients are corrected for half-test length by the Spearman-Brown formula.

[a] Ages 0–6 and 50–90

[b] Adaptive Behavior Composite reliability coefficients were computed using the formula provided by Nunnally (1978, p. 248).

[c] Includes ages 50–51

Table 7.3 Reliability Study Samples, by Sex, Race/Ethnicity, and Mother's Education Level

	Sex				Race/Ethnicity								Mother's Education Level[a]							
	Female		Male		African American		Hispanic		White		Other[b]		11th Grade or Less		High School Graduate or GED		1–3 Years of College		4-Year Degree or Higher	
Study Group	*N*	%	*N*	%	*N*	%	*N*	%	*N*	%	*N*	%	*N*	%	*N*	%	*N*	%	*N*	%
Test-Retest																				
Ages 0–2	11	44.0	14	56.0	10	40.0	2	8.0	13	52.0	0	0.0	6	24.0	11	44.0	3	12.0	5	20.0
Ages 3–6	27	44.3	34	55.7	13	21.3	5	8.2	42	68.9	1	1.6	2	3.3	11	18.0	13	21.3	35	57.4
Ages 7–13	86	49.1	89	50.9	23	13.1	8	4.6	135	77.1	9	5.2	3	1.7	41	23.5	55	31.4	76	43.4
Ages 14–21	52	57.8	38	42.2	7	7.8	2	2.2	81	90.0	0	0.0	0	0.0	20	22.2	34	37.8	36	40.0
Ages 22–71	30	47.6	33	52.4	3	4.8	3	4.8	57	90.4	0	0.0	0	0.0	19	30.7	10	16.1	33	53.2
Interinterviewer																				
Ages 0–6	21	53.8	18	46.2	4	10.3	0	0.0	35	89.7	0	0.0	2	5.1	7	18.0	6	15.4	24	61.5
Ages 7–18	36	49.3	37	50.7	3	4.1	2	2.7	67	91.8	1	1.4	0	0.0	14	19.2	24	32.9	35	47.9
Interrater																				
Ages 0–6	36	55.4	29	44.6	0	0.0	3	4.6	59	90.8	3	4.6	3	4.6	21	32.3	20	30.8	21	32.3
Ages 7–18	43	49.4	44	50.6	2	2.3	4	4.6	81	93.1	0	0.0	3	3.6	28	33.7	19	22.9	33	39.8

[a] For ages 0 through 25, if mother's or female guardian's education level was not reported, father's or male guardian's education level was used. Participant's education level was used for ages 26 and above.

[b] Includes American Indians, Alaska Natives, Asians, Pacific Islanders, and all other groups not classified as African American, Hispanic, or White.

The intraclass correlation coefficient (r_i) was used to estimate the test-retest reliability of the Vineland–II domains and subdomains (Shrout and Fleiss, 1979). Unlike the Pearson correlation, which measures only the similarity in rank ordering of scores from the two occasions, the intraclass correlation is also sensitive to systematic differences in the level of scores. Thus, if scores tended to be higher (or lower) on the second occasion because of systematic practice effects, the intraclass correlation would reflect this difference. (For further discussion, see Cicchetti, 1994, and Schuck, 2004.)

Retest reliability coefficients were adjusted to remove the biasing effect of smaller or larger score variances in the retest sample than in the general population. For instance, the standard deviation of Motor Skills Domain standard scores on the first administration was 17.6, which is larger than the population standard deviation of 15. The relatively large score variance in the retest sample produces an inflated reliability coefficient; the adjusted reliability coefficient estimates what the reliability would be if the sample standard deviation were 15.

Table 7.4 presents the raw and adjusted intraclass correlations between first test scores and retest scores. Overall, subdomain retest reliability coefficients are very high, with most values exceeding .85. Except for ages 14 through 21, average subdomain reliabilities were .85 and higher. The lower reliability for ages 14 through 21 is consistent with the relatively low internal-consistency reliability obtained in this age range. Adolescence is a transition age in which youth spend more time away from parents and caregivers, thus, limiting their opportunity to observe behavior.

Domain reliabilities reflect the pattern of the subdomain reliabilities. The average reliability across domains within age groups ranges from .88 to .92, except for ages 14 through 21 in which the average reliability across domains is .76. Adaptive Behavior Composite reliabilities were above .90 in each age group except for the adolescent group value of .83. Despite these limitations, the reported levels of test-retest reliability fall into the good to excellent range of clinical significance, by the criteria of Cicchetti (2001); Cicchetti & Sparrow (1981); and Fleiss, Levin & Paik (2003).

Table 7.4 also reports mean scores on the first and second occasions. The average difference from initial testing to retest is extremely small, indicating that there was no biasing effect on the second administration due to familiarity with test content or the semistructured interview process.

Table 7.4 Test-Retest Reliability Coefficients for Domains, Subdomains, and Adaptive Behavior Composite, by Age

	Standard/*v*-Scale Scores					Correlation		Test Interval (in days)	
	First Administration		Second Administration		Average Difference[a]		Adj		
	Mean	*SD*	Mean	*SD*		*r*	*r*[b]	Mean	Range
Ages 0–2 (*N* = 25)								18.0	14–30
Communication	99.4	13.5	99.2	14.2	−0.2	.95	.96		
Receptive	15.0	2.2	15.3	2.5	0.3	.75	.84		
Expressive	15.0	2.7	15.0	2.7	0.0	.89	.91		
Written	—	—	—	—	—	—	—		
Daily Living Skills	106.5	14.9	107.4	13.5	0.9	.90	.90		
Personal	15.8	2.5	16.1	2.4	0.3	.85	.89		
Domestic[c]	15.8	2.9	15.9	3.2	0.1	.87	.88		
Community[c]	16.5	3.2	16.4	3.2	−0.1	.91	.90		
Socialization	100.7	16.1	101.7	16.4	1.0	.93	.92		
Interpersonal Relationships	14.6	2.9	14.8	3.2	0.2	.92	.92		
Play and Leisure Time	15.9	3.1	16.0	3.0	0.1	.88	.87		
Coping Skills[c]	15.0	3.0	15.0	3.2	0.0	.92	.92		
Motor Skills	106.6	17.6	103.5	15.4	−3.1	.86	.82		
Gross	15.9	2.5	15.6	2.5	−0.3	.81	.86		
Fine	16.7	3.8	16.1	3.2	−0.6	.83	.76		
Adaptive Behavior Composite	103.5	15.8	103.3	14.7	−0.2	.96	.96		
Mean Domain Correlation						.91	.90		
Mean Subdomain Correlation						.86	.87		
Ages 3–6 (*N* = 61)								20.6	14–30
Communication	102.3	13.5	103.2	12.6	0.9	.90	.92		
Receptive	15.5	2.8	15.5	2.6	0.0	.84	.86		
Expressive	15.9	2.8	16.0	3.0	0.1	.84	.86		
Written	15.4	2.8	15.8	2.6	0.4	.89	.90		
Daily Living Skills	100.1	14.2	100.6	14.6	0.5	.90	.91		
Personal	14.8	2.8	15.1	2.7	0.3	.89	.90		
Domestic	15.3	2.7	15.3	2.8	0.0	.81	.84		
Community	15.4	2.7	15.3	2.6	-0.1	.86	.88		
Socialization	101.4	15.0	102.2	15.3	0.8	.88	.88		
Interpersonal Relationships	15.4	2.8	15.5	2.7	0.1	.73	.75		
Play and Leisure Time	15.7	3.3	15.6	3.1	−0.1	.85	.83		
Coping Skills	15.0	2.8	15.5	3.2	0.5	.86	.87		
Motor Skills	102.4	13.9	102.2	14.2	−0.2	.89	.90		
Gross	15.1	2.4	15.0	2.3	−0.1	.80	.86		
Fine	15.4	2.5	15.5	2.5	0.1	.89	.92		
Adaptive Behavior Composite	101.7	14.6	102.3	14.6	0.6	.94	.94		
Mean Domain Correlation						.89	.90		
Mean Subdomain Correlation						.84	.86		
Ages 7–13 (*N* = 175)								18.4	13–34
Communication	103.6	13.6	103.9	13.0	0.3	.86	.88		
Receptive	14.9	2.4	15.1	2.3	0.2	.83	.88		
Expressive	15.7	2.7	15.6	2.5	−0.1	.78	.81		
Written	15.5	2.5	15.6	2.5	0.1	.82	.86		
Daily Living Skills	103.6	13.0	103.6	13.3	0.0	.91	.93		
Personal	15.7	2.5	15.6	2.5	−0.1	.85	.89		
Domestic	15.6	2.6	15.6	2.6	0.0	.88	.91		
Community	15.5	2.4	15.6	2.3	0.1	.83	.88		
Socialization	103.4	13.7	104.0	14.2	0.6	.82	.84		
Interpersonal Relationships	15.1	2.2	15.3	2.2	0.2	.75	.84		
Play and Leisure Time	15.2	2.8	15.0	2.8	−0.2	.76	.78		
Coping Skills	15.7	2.8	16.0	2.8	0.3	.75	.77		
Adaptive Behavior Composite	103.3	12.9	103.7	13.1	0.4	.91	.93		
Mean Domain Correlation						.86	.88		
Mean Subdomain Correlation						.81	.85		

continued on next page

Table 7.4, *continued*

	Standard/v-Scale Scores					Correlation		Test Interval (in days)	
	First Administration		Second Administration		Average Difference[a]		Adj		
	Mean	*SD*	Mean	*SD*		*r*	*r*[b]	Mean	Range
Ages 14–21 (*N* = 90)								18.2	13–34
Communication	100.3	13.0	102.5	13.1	0.6	.76	.74		
Receptive	14.6	1.8	14.7	1.6	0.1	.79	.91		
Expressive	15.4	2.0	15.5	1.8	0.1	.66	.80		
Written	14.4	2.2	14.7	2.0	0.3	.72	.82		
Daily Living Skills	101.9	14.3	103.1	13.9	1.2	.75	.76		
Personal	15.2	2.3	15.4	2.2	0.2	.60	.70		
Domestic	14.9	2.6	14.9	2.5	0.0	.78	.82		
Community	15.3	2.6	15.5	2.5	0.2	.68	.73		
Socialization	104.6	12.7	105.5	13.4	1.1	.74	.78		
Interpersonal Relationships	15.7	2.5	15.9	2.3	0.2	.63	.70		
Play and Leisure Time	16.1	1.9	16.2	1.8	0.1	.51	.68		
Coping Skills	15.4	2.8	15.6	2.4	0.2	.68	.70		
Adaptive Behavior Composite	102.4	13.7	103.9	13.5	1.1	.81	.83		
Mean Domain Correlation						.75	.76		
Mean Subdomain Correlation						.67	.76		
Ages 22–71 (*N* = 63)								17.4	14–28
Communication	101.6	9.3	101.2	9.4	−0.4	.83	.92		
Receptive	15.0	1.8	15.1	1.6	0.1	.83	.93		
Expressive	15.5	1.4	15.5	1.5	0.0	.75	.92		
Written	15.5	1.4	15.4	1.6	−0.1	.60	.85		
Daily Living Skills	101.2	11.9	100.6	12.0	−0.6	.93	.95		
Personal	15.1	1.6	15.1	1.8	0.0	.65	.85		
Domestic	14.7	2.6	14.6	2.7	−0.1	.93	.95		
Community	15.8	1.6	15.8	1.6	0.0	.93	.98		
Socialization	101.9	10.5	101.2	12.1	−0.7	.75	.85		
Interpersonal Relationships	15.0	2.1	14.9	2.2	−0.1	.85	.92		
Play and Leisure Time	15.6	1.4	15.5	1.6	−0.1	.50	.78		
Coping Skills	15.6	2.1	15.4	2.1	−0.2	.77	.87		
Motor Skills[d]	104.5	5.7	104.3	7.2	−0.2	.76	.95		
Gross[d]	16.2	1.2	16.1	1.5	−0.1	.71	.93		
Fine[d]	15.4	1.0	15.5	0.8	0.1	.73	.95		
Adaptive Behavior Composite	103.4	13.5	103.1	14.5	−0.3	.94	.95		
Mean Domain Correlation						.82	.92		
Mean Subdomain Correlation						.75	.90		
Total (*N* = 414)								18.5	13–34
Communication	102.1	12.9	102.6	12.3	0.5	.85	.88		
Receptive	15.0	2.2	15.1	2.1	0.1	.82	.89		
Expressive	15.6	2.4	15.6	2.4	0.0	.78	.84		
Written	15.2	2.4	15.4	2.3	0.2	.81	.87		
Daily Living Skills	102.5	13.5	102.9	13.4	0.4	.87	.89		
Personal	15.4	2.4	15.4	2.4	0.0	.79	.85		
Domestic	15.3	2.6	15.3	2.7	0.0	.86	.89		
Community	15.5	2.4	15.6	2.4	0.1	.81	.87		
Socialization	103.0	13.4	103.6	13.9	0.6	.82	.85		
Interpersonal Relationships	15.2	2.4	15.4	2.4	0.2	.75	.82		
Play and Leisure Time	15.6	2.6	15.5	2.6	−0.1	.75	.79		
Coping Skills	15.5	2.7	15.7	2.7	0.2	.77	.80		
Motor Skills[e]	103.8	13.8	102.9	13.4	−0.9	.87	.89		
Gross[e]	15.5	2.3	15.3	2.3	−0.2	.80	.87		
Fine[e]	15.7	2.7	15.7	2.5	0.0	.86	.88		
Adaptive Behavior Composite	102.9	13.6	103.5	13.8	0.6	.90	.92		
Mean Domain Correlation						.85	.88		
Mean Subdomain Correlation						.80	.85		

[a] Difference equals mean derived score from second administration minus mean from first administration.

[b] All reliability coefficients were corrected for restriction of range based on the standard deviation obtained on the first testing, using the variability correction of Cohen et al. (2003, p. 58).

[c] Ages 1–2 $N = 21$

[d] Ages 50–90 $N = 20$

[e] Ages 0–6 and 50–90 $N = 106$

Interinterviewer Reliability (Survey Interview Form)

Interinterviewer reliability measures the consistency of scores obtained by different examiners interviewing the same respondent. Because interviews took place on different days, the consistency of scores across examiners is influenced not only by variations in how examiners conduct the semistructured interview and in how they interpret and score items, but also by fluctuations in respondent recall across occasions. To evaluate the effects of examiner variability, an interinterviewer reliability study was conducted using the Survey Interview Form. Comparing these results with those of the test-retest study, where the conditions are the same except that the same examiner conducts both interviews, gives an estimate of the magnitude of the examiner effect.

For this study, 148 respondents were interviewed on two separate occasions by two different examiners. A large number of pairs of examiners participated in the study. Interinterviewer reliability coefficients based on the intraclass correlation are reported in **Table 7.5,** both with and without adjustment for range restriction, for the two younger age groups, birth through 6 and 7 through 18.

For the sample aged birth through 6, the interinterviewer reliability of the Adaptive Behavior Composite is .87. Domain reliabilities average .75, and subdomain reliabilities range from .48 for Play and Leisure Time to .92 for Written, averaging .70. For the older group, interinterviewer reliability is .74 for the Adaptive Behavior Composite and averages .72 for the domains and .70 for the subdomains. As expected, these values are lower (by about .05 to .10) than in the test-retest reliability study, indicating that there is an effect of examiner on Survey Interview Form scores. Consistent with the results from the retest study, practice effects (score differences between first and second administrations) were negligible.

Table 7.5 does not report interinterviewer reliabilities for a third sample, 36 adults aged 19 through 90, because the values in that sample were dramatically affected by lack of variability brought about by the large proportion of cases scoring at or just below the maximum score on subdomains. In each of the nine subdomains, two *v*-scale scores accounted for at least 82 percent of the cases, in three subdomains the two scores accounted for 100 percent of the cases. Generally, the two scores were the two highest possible scores. For example, in the Play and Leisure Subdomain, 35 of the 36 cases obtained a *v*-scale score of 16 and the other obtained a *v*-scale score of 17. As an alternative, the percentage of interinterviewer score agreement is reported. The percentage of exact agreement in subdomain raw scores ranged from 72 percent to 100 percent, and exceeded 85 percent in four of the nine subdomains. At the domain level, the distribution of scores was more variable and the ceiling effects were less pronounced. Even so, reliability was evaluated with the percent agreement statistic in order to present a consistency summary of reliability for the adult sample. Exact agreement of the domain standard scores is 64 percent in the Communication Domain, 50 percent in the Daily Living Skills Domain, and 69 percent in the Socialization Domain. Exact agreement is an excessively stringent measure when the range of scores becomes large as is the case with the domain standard scores. Using a criteria for agreement a difference of 5 standard score points or less between examiners, percent agreement remains 65 percent in the Communication Domain, but increases to 58 percent in the Daily Living Skills Domain, and 78 percent in the Socialization Domain. For the Adaptive Behavior Composite, 61 percent of the cases were within 5 points between raters. These values indicate relatively consistent domain and Adaptive Behavior Composite scores of adults by respondents who know them well.

Table 7.5 Survey Interview Form: Interinterviewer Reliability Coefficients for Domains, Subdomains, and Adaptive Behavior

	Standard/*v*-Scale Scores					Correlation		Test Interval (in days)	
	Rater 1		Rater 2		Average	Adj			
	Mean	*SD*	Mean	*SD*	Difference[a]	r	r^b	Mean	Range
Ages 0–6 (*N* = 39)								20.3	0–28
Communication	106.1	11.2	105.8	11.6	−0.3	.67	.77		
Receptive	16.5	2.8	16.4	2.3	−0.1	.56	.59		
Expressive	16.5	2.1	16.7	2.6	0.2	.63	.76		
Written[c]	15.5	2.5	15.1	2.4	−0.4	.89	.92		
Daily Living Skills	105.3	11.9	105.0	13.2	−0.3	.82	.87		
Personal	16.4	2.4	15.9	2.5	−0.5	.80	.86		
Domestic[d]	15.8	2.7	15.7	2.9	−0.1	.70	.74		
Community[d]	15.5	2.2	16.3	2.5	0.8	.59	.71		
Socialization	108.1	12.2	106.9	12.9	−1.2	.58	.66		
Interpersonal Relationships	16.0	2.0	16.4	2.4	0.4	.52	.67		
Play and Leisure Time	16.8	2.6	16.1	2.3	−0.7	.43	.48		
Coping Skills[d]	16.7	2.5	16.4	3.0	−0.3	.49	.56		
Motor Skills	107.2	11.8	105.5	13.8	−1.7	.64	.73		
Gross	16.2	2.3	15.8	2.3	−0.4	.67	.76		
Fine	16.4	2.0	16.2	2.4	−0.2	.48	.63		
Adaptive Behavior Composite	107.9	10.8	106.9	13.2	−1.0	.79	.87		
Mean Domain Correlation						.68	.76		
Mean Subdomain Correlation						.61	.70		
Ages 7–18 (*N* = 73)								19.8	0–29
Communication	104.1	12.4	106.9	12.0	2.8	.58	.65		
Receptive	15.2	1.9	15.5	1.7	0.3	.57	.74		
Expressive	15.6	2.3	15.7	2.0	0.1	.66	.75		
Written	15.3	2.2	15.7	2.3	0.4	.58	.70		
Daily Living Skills	102.0	12.8	103.2	14.7	1.2	.70	.75		
Personal	15.1	2.4	15.2	2.5	0.1	.65	.73		
Domestic	15.2	2.4	15.1	2.7	−0.1	.68	.76		
Community	15.5	2.2	15.9	2.3	0.4	.53	.65		
Socialization	105.1	12.1	107.0	12.0	1.9	.68	.75		
Interpersonal Relationships	15.6	2.4	15.7	2.3	0.1	.65	.73		
Play and Leisure Time	15.6	2.1	16.0	2.1	0.4	.42	.55		
Coping Skills	15.8	2.3	16.2	2.6	0.4	.56	.66		
Adaptive Behavior Composite	103.9	12.7	106.7	13.1	2.8	.68	.74		
Mean Domain Correlation						.65	.72		
Mean Subdomain Correlation						.59	.70		
Total (*N* = 112)								20.0	0–29
Communication	104.8	12.0	106.5	11.8	1.7	.60	.68		
Receptive	15.6	2.3	15.8	2.0	0.2	.59	.69		
Expressive	15.9	2.2	16.1	2.3	0.2	.66	.77		
Written	15.4	2.3	15.6	2.3	0.2	.65	.74		
Daily Living Skills	103.1	12.5	103.9	14.1	0.8	.74	.80		
Personal	15.5	2.5	15.5	2.5	0.0	.71	.77		
Domestic	15.4	2.5	15.3	2.8	-0.1	.69	.75		
Community	15.5	2.2	16.0	2.4	0.5	.55	.67		
Socialization	106.1	12.2	107.0	12.2	0.9	.64	.72		
Interpersonal Relationships	15.8	2.3	15.9	2.3	0.1	.61	.71		
Play and Leisure Time	16.0	2.3	16.0	2.2	0.0	.43	.53		
Coping Skills	16.1	2.4	16.3	2.7	0.2	.54	.63		
Motor Skills[e]	107.2	11.8	105.5	13.8	−1.7	.64	.73		
Gross[e]	16.2	2.3	15.8	2.3	−0.4	.67	.76		
Fine[e]	16.4	2.0	16.2	2.4	−0.2	.48	.63		
Adaptive Behavior Composite	105.3	12.2	106.8	13.1	1.5	.71	.78		
Mean Domain Correlation						.66	.73		
Mean Subdomain Correlation						.60	.70		

[a] Difference equals mean derived score from second administration minus mean from first administration

[b] All reliability coefficients were corrected for restriction of range based on the standard deviation obtained on the first testing, using the variability correction of Cohen et al. (2003, p. 58).

[c] Ages 3–6 *N* = 20

[d] Ages 1–6 *N* = 35

[e] Ages 0–6 *N* = 39

Interrater Reliability (Parent/Caregiver Rating Form)

Interrater reliability measures the consistency of scores obtained from different respondents describing the same individual. The consistency of scores between respondents is influenced by differences in the level of familiarity each has with the individual. Furthermore, individuals may act differently around each of the respondents, and the respondents may observe the individual's behavior in different settings. Differences between respondents on these factors will lower the correlation between the scores, as will differences in how the respondents interpret items and in their overall tendency to be strict or lenient in scoring. To evaluate the effect of these differences on consistency, an interrater reliability study was conducted using the Parent/Caregiver Rating Form.

There were 152 individuals who participated in the study. For each individual, a Parent/Caregiver Rating Form was completed by a pair of respondents, both of whom were familiar with the individual. Most often, the respondents were the individual's parents. Interrater reliability coefficients, computed using the intraclass correlation, are reported in **Table 7.6** (both unadjusted and adjusted for restriction of score range).

In the sample aged birth through 6, the interrater reliability of the Adaptive Behavior Composite is .83, and average reliabilities for domains and subdomains are only slightly lower than this value (.81 and .78 respectively). In the group aged 7 through 18, interrater reliabilities are .81 for the Adaptive Behavior Composite and average in the mid to low .70s for the domains and subdomains. These relatively high values indicate that two respondents who each know the individual well can provide fairly consistent ratings. In general, the interrater reliability coefficients for the Parent/Caregiver Rating Form are comparable to the interinterviewer coefficients for the Survey Interview Form, reported in Table 7.5.

As in the interinterviewer reliability study, interrater reliabilities in a third sample (39 individuals aged 19 through 61) were strongly affected by the large proportion of cases scoring at or just below the maximum score on subdomains. In each subdomain two *v*-scale scores accounted for more than 75 percent of the scores, and in the Expressive and Play and Leisure Time subdomains only one *v*-scale score accounted for more than 90 percent of the scores. Generally, it is the two highest possible scores in the subdomain. Exact agreement as measured by the percent of scores that were the same across raters, is in the 80s for the Expressive, Written, Play and Leisure Time, and Coping Subdomains, in the 70s for the Receptive, Personal, Community, and Interpersonal Relationships Subdomains, and it is 59 percent for the Domestic Subdomain. Using a threshold of a difference of one *v*-scale point or less, percent agreement rises to 90 percent in the Written Subdomain, 75 percent in the Personal Subdomain, 83 percent in the Community Subdomain, and 85 percent in the Play and Leisure Time Subdomain. Percent agreement does not rise in the other subdomains. Among the domains, the percent of scores that are within five standard scores points between raters is 62 percent in the Communication Domain, 55 percent in the Daily Living Skills Domain, and 77 percent in the Socialization Domain. For the Adaptive Behavior Composite, 64 percent of the cases were within five points. These values indicate relatively consistent ratings of adults by respondents who know them well.

Table 7.6 Parent/Caregiver Rating Form: Interrater Reliability Coefficients for Domains, Subdomains, and Adaptive Behavior Composite, by Age

	Standard/*v*-Scale Scores					Correlation		Test Interval (in days)	
	Rater 1		Rater 2		Average Difference[a]		Adj		
	Mean	*SD*	Mean	*SD*		*r*	*r*[b]	Mean	Range
Ages 0–6 (*N* = 65)								2.3	0–24
Communication	99.0	11.6	99.9	12.6	0.9	.81	.87		
Receptive	15.2	2.5	15.6	2.6	0.4	.75	.81		
Expressive	15.0	2.4	14.9	2.5	−0.1	.82	.87		
Written[c]	14.4	2.5	14.5	2.6	0.1	.88	.91		
Daily Living Skills	94.6	15.2	96.6	15.1	2.0	.61	.60		
Personal	14.5	2.9	14.8	2.8	0.3	.56	.57		
Domestic[d]	14.3	3.0	14.6	3.1	0.3	.79	.79		
Community[d]	13.9	3.4	14.0	3.5	0.1	.90	.88		
Socialization	102.6	12.1	103.4	13.5	0.8	.73	.80		
Interpersonal Relationships	15.6	2.5	15.5	2.5	−0.1	.63	.70		
Play and Leisure Time	15.9	2.6	16.3	2.8	0.4	.78	.82		
Coping Skills[d]	15.0	2.6	15.2	2.5	0.2	.85	.88		
Motor Skills	101.2	14.6	102.0	13.9	0.8	.82	.83		
Gross	15.3	2.4	15.6	2.3	0.3	.72	.79		
Fine	15.4	2.7	15.3	2.7	−0.1	.82	.85		
Adaptive Behavior Composite	99.0	13.2	100.4	13.4	1.4	.80	.83		
Mean Domain Correlation						.74	.78		
Mean Subdomain Correlation						.77	.81		
Ages 7–18 (*N* = 87)								2.6	0–23
Communication	102.4	14.1	101.5	14.1	−0.9	.68	.70		
Receptive	14.7	2.2	14.8	2.1	0.1	.73	.82		
Expressive	15.1	2.5	15.1	2.6	0.0	.51	.58		
Written	15.4	2.3	15.1	2.3	−0.3	.68	.77		
Daily Living Skills	102.5	12.7	102.2	12.0	−0.3	.74	.79		
Personal	15.6	2.3	15.7	2.2	0.1	.56	.66		
Domestic	14.9	2.7	14.6	2.8	−0.3	.74	.77		
Community	15.6	2.2	15.7	2.2	0.1	.69	.79		
Socialization	103.4	11.1	102.8	12.9	−0.6	.66	.76		
Interpersonal Relationships	15.4	2.4	15.3	2.4	−0.1	.66	.74		
Play and Leisure Time	15.6	2.1	15.6	2.5	0.0	.48	.62		
Coping Skills	15.7	2.7	15.5	2.8	−0.2	.61	.65		
Adaptive Behavior Composite	102.7	12.4	101.9	12.6	−0.8	.75	.81		
Mean Domain Correlation						.69	.75		
Mean Subdomain Correlation						.63	.71		
Total (*N* = 152)								2.5	0–24
Communication	100.9	13.1	100.8	13.4	−0.1	.73	.77		
Receptive	15.0	2.3	15.1	2.4	0.1	.74	.82		
Expressive	15.0	2.4	15.0	2.5	0.0	.64	.72		
Written	15.1	2.4	15.0	2.4	−0.1	.74	.81		
Daily Living Skills	99.1	14.3	99.8	13.6	0.7	.69	.71		
Personal	15.1	2.6	15.3	2.5	0.2	.58	.63		
Domestic	14.7	2.8	14.6	2.9	−0.1	.76	.78		
Community	14.9	2.8	15.0	2.8	0.1	.83	.85		
Socialization	103.1	11.5	103.1	13.1	0.0	.69	.78		
Interpersonal Relationships	15.5	2.4	15.4	2.5	−0.1	.65	.73		
Play and Leisure Time	15.7	2.3	15.9	2.6	0.2	.64	.74		
Coping Skills	15.4	2.7	15.4	2.7	0.0	.69	.73		
Motor Skills[e]	101.2	14.6	102.0	13.9	0.8	.82	.83		
Gross[e]	15.3	2.4	15.6	2.3	0.3	.72	.79		
Fine[e]	15.4	2.7	15.3	2.7	−0.1	.82	.85		
Adaptive Behavior Composite	101.1	12.9	101.3	12.9	0.2	.78	.82		
Mean Domain Correlation						.73	.77		
Mean Subdomain Correlation						.71	.77		

[a] Difference equals mean derived score from second administration minus mean from first administration

[b] All reliability coefficients were corrected for restriction of range based on the standard deviation obtained on the first testing, using the variability correction of Cohen et al. (2003, p. 58).

[c] Ages 3–6 *N* = 28

[d] Ages 1–6 *N* = 53

[e] Ages 0–6 *N* = 65

Maladaptive Behavior Index

This section describes the results of analyses of the internal-consistency, test-retest, and interrater reliability of the optional Maladaptive Behavior Index and its Internalizing and Externalizing subscales. The Maladaptive Behavior Index uses different administration procedures than the adaptive behavior subdomains, so different methods for estimating reliability are used as well. Whereas the adaptive behavior subdomains are administered with basal and ceiling rules, all items of the Maladaptive Behavior Index are scored for each individual. Another administration difference is that the maladaptive items are described to the respondent during the semistructured interview, and the respondent rates the frequency of behavior, making administration of this section of the Survey Interview Form very similar to administration of the Parent/Caregiver Rating Form.

Internal-Consistency Reliability

Because the Maladaptive Behavior Index has complete item data, Cronbach's alpha could be used to compute internal-consistency reliability. This method shares the same theoretical foundation as the split-half method and actually represents the average of all possible split-half reliabilities. Values of coefficient alpha for the Internalizing and Externalizing subscales and the Maladaptive Behavior Index are reported in **Table 7.7** for five age groups: 3 through 5, 6 through 11, 12 through 18, 19 through 39, and 40 through 90.

Table 7.7 Internal Consistency: Cronbach's Alpha Coefficients for Maladaptive Behavior Subscales and Index, by Age

Age	*N*	Internalizing	Externalizing	Maladaptive Behavior Index
3–5	648	.78	.87	.88
6–11	1230	.80	.88	.90
12–18	735	.82	.90	.91
19–39	226	.80	.88	.89
40–90	179	.83	.67	.85

Table 7.8 Standard Errors of Measurement for Maladaptive Behavior Subscales and Index, by Age

Age	*N*	Internalizing	Externalizing	Maladaptive Behavior Index
3–5	648	1.36	1.08	1.04
6–11	1230	1.12	0.97	0.82
12–18	735	1.10	0.79	0.81
19–39	226	1.16	0.73	0.90
40–90	179	0.91	1.26	1.08

Generally, internal-consistency reliabilities of the two subscales were in the .80s, although the value for the Externalizing subscale among older adults was .67. For the Maladaptive Behavior Index, alpha coefficients ranged from .85 to .91. The *SEMs* in *v*-scale score units for the subscales and the Maladaptive Behavior Index, reported in **Table 7.8,** are generally close to a value of 1.

Test-Retest Reliability

For the test-retest reliability study of the Maladaptive Behavior Index and its subscales, the data from the Survey Interview Form and Parent/Caregiver Rating Form were analyzed using the intraclass correlation method. A total of 389 individuals were rated on two occasions, separated by an interval of 14 to 30 days. Correlations (adjusted for range restriction) are generally quite high, with all but one equaling or exceeding .85 (see **Table 7.9**). Furthermore, the average difference of the *v*-scale score between initial testing and retest is quite small, about one-tenth of a standard deviation or less. Taken together, these results indicate a high degree of stability of maladaptive *v*-scale scores across occasions.

Table 7.9 Test-Retest Reliability Coefficients for Maladaptive Behavior Subscales and Index, by Age

	First Administration		Second Administration		Average Difference[a]	Correlation		Test Interval (in days)	
	Mean	*SD*	Mean	*SD*		*r*	Adj. *r*[b]	Mean	Range
Ages 3–5 (*N* = 41)								20.5	14–30
Internalizing	14.5	2.8	14.1	3.0	−0.4	.72	.74		
Externalizing	14.3	3.1	14.0	3.3	−0.3	.89	.88		
Maladaptive Behavior Index	14.4	3.4	14.1	3.4	−0.3	.89	.86		
Ages 6–11 (*N* = 139)								18.7	14–30
Internalizing	14.5	2.0	14.3	2.0	−0.2	.77	.88		
Externalizing	14.6	2.6	14.3	2.5	−0.3	.82	.86		
Maladaptive Behavior Index	14.8	2.1	14.4	2.2	−0.4	.83	.90		
Ages 12–18 (*N* = 128)								18.4	13–34
Internalizing	14.8	2.4	14.6	2.2	−0.2	.79	.85		
Externalizing	15.0	2.2	14.6	2.1	−0.4	.79	.87		
Maladaptive Behavior Index	14.8	2.3	14.5	2.2	−0.3	.84	.90		
Ages 19–39 (*N* = 53)								16.9	14–28
Internalizing	15.3	2.6	15.2	2.4	−0.1	.81	.85		
Externalizing	15.3	1.6	15.2	1.6	−0.1	.83	.94		
Maladaptive Behavior Index	15.4	2.5	15.0	2.4	−0.4	.85	.89		
Ages 40–71 (*N* = 28)								18.5	14–28
Internalizing	15.8	2.3	15.9	2.2	0.1	.78	.85		
Externalizing	15.6	2.6	15.6	2.5	0.0	.97	.98		
Maladaptive Behavior Index	15.0	3.1	15.1	2.9	0.1	.93	.93		

[a] Difference equals mean raw score from second administration minus mean from first administration

[b] All reliability coefficients were corrected for restriction of range based on the standard deviation obtained on the first testing, using the variability correction of Cohen et al. (2003, p. 58).

Interinterviewer and Interrater Reliability

Studies of the interinterviewer and interrater reliabilities of the Maladaptive Behavior Index and its subscales were conducted separately for each form. In the Survey Interview Form study, the same respondent was interviewed about the same individual on two occasions by different examiners. In the Parent/Caregiver Rating Form study, two respondents each completed the form on the same individual. Reliabilities were based on the intraclass correlation. Results for three age groups are presented in **Tables 7.10** (Survey Interview Form) and **7.11** (Parent/Caregiver Rating Form). For the Survey Interview Form, interinterviewer reliabilities are high (in the .80s) at ages 3 through 11; in the mid .70s to mid .80s at ages 12 through 18; and between .59 and .77 at ages 19 through 90. Results for the Parent/Caregiver Rating Form are very similar. The low variability of scores in the adult group explains the relatively low reliability coefficients in that group.

Table 7.10 Survey Interview Form: Interrater Reliability Coefficients for Maladaptive Behavior Subscales and Index, by Age

	Rater 1		Rater 2		Average Difference[a]	Correlation		Test Interval (in days)	
	Mean	*SD*	Mean	*SD*		*r*	Adj. r^b	Mean	Range
Ages 3–11 (*N* = 50)								19.4	0–28
Internalizing	15.0	2.7	14.8	2.5	−0.2	.80	.83		
Externalizing	15.3	2.6	15.3	2.7	0.0	.82	.86		
Maladaptive Behavior Index	15.3	2.7	15.2	2.5	−0.1	.83	.86		
Ages 12–18 (*N* = 43)								19.6	0–29
Internalizing	14.6	2.1	14.1	1.8	−0.5	.63	.76		
Externalizing	15.0	2.0	14.5	1.8	−0.5	.70	.83		
Maladaptive Behavior Index	15.1	1.7	14.3	1.8	−0.8	.55	.76		
Ages 19–70 (*N* = 36)								22.3	11–30
Internalizing	14.5	1.9	14.6	1.9	0.1	.61	.77		
Externalizing	15.2	1.6	14.8	1.3	−0.4	.44	.68		
Maladaptive Behavior Index	14.9	1.8	14.7	1.4	−0.2	.40	.59		

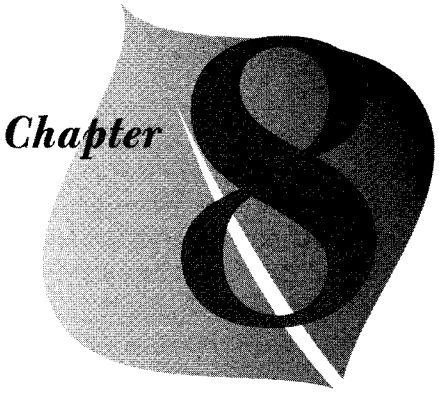
[a] Difference equals mean raw score from second administration minus mean from first administration
[b] All reliability coefficients were corrected for restriction of range based on the standard deviation obtained on the first testing, using the variability correction of Cohen et al. (2003, p. 58).

Table 7.11 Parent/Caregiver Rating Form: Interrater Reliability Coefficients for Maladaptive Behavior Subscales and Index, by Age

	Rater 1		Rater 2		Average Difference[a]	Correlation		Test Interval (in days)	
	Mean	*SD*	Mean	*SD*		*r*	Adj. r^b	Mean	Range
Ages 3–11 (*N* = 60)								1.2	0–14
Internalizing	14.3	2.1	14.6	2.2	0.3	.66	.78		
Externalizing	14.7	2.6	14.5	2.6	−0.2	.78	.82		
Maladaptive Behavior Index	14.6	2.4	14.5	2.6	−0.1	.81	.87		
Ages 12–18 (*N* = 55)								3.4	0–23
Internalizing	15.1	2.4	15.2	2.3	0.1	.60	.68		
Externalizing	15.1	2.5	15.3	2.7	0.2	.73	.79		
Maladaptive Behavior Index	15.1	2.6	15.2	2.6	0.1	.67	.72		
Ages 19–61 (*N* = 39)								2.7	0–17
Internalizing	14.7	2.4	14.1	2.1	−0.6	.32	.39		
Externalizing	15.5	2.1	15.2	2.0	−0.3	.56	.69		
Maladaptive Behavior Index	15.1	2.6	14.6	2.6	−0.5	.59	.64		

[a] Difference equals mean raw score from second administration minus mean from first administration
[b] All reliability coefficients were corrected for restriction of range based on the standard deviation obtained on the first testing, using the variability correction of Cohen et al. (2003, p. 58).

Validity



Validity refers to the degree to which test scores measure what they are purported to measure. It is the most fundamental consideration in test development and evaluation. Validity begins with explicit statements of the proposed uses and interpretation of test scores, and is followed by the accumulation of evidence supporting these statements (American Educational Research Association et al., 1999). When test scores are used in more than one way, there must be evidence supporting each intended use.

This chapter presents evidence for the use of the Vineland–II to assess the adaptive behavior skills of individuals from birth through 90 years old. The theoretical and empirical sources of evidence include:

- Test content
- Response process
- Test structure
- Clinical groups
- Relationships to other measures

The tables in this chapter include results for the combined data from the Survey Interview Form and the Parent/Caregiver Rating Form. The relevance of these results to specific situations depends on strict adherence to the administration and scoring procedures described in Chapters 3 and 4, and on confining interpretation to the intended uses outlined in Chapter 1.

Evidence Based on Test Content

Evidence of validity based on test content typically demonstrates a strong theoretical and empirical linkage between test content and the behavior or skills that are important to adaptive functioning. This linkage should also support construct interpretation.

Theoretical Linkage

As described in Chapter 6, the identification of important adaptive behaviors and skills to be measured by the Vineland–II, and the development of the test content, are closely linked to the instrument's theoretical structure. The Vineland–II is explicitly designed to include a representative sample of the important behaviors and skills within four major domains of adaptive functioning: Communication, Daily Living Skills, Socialization, and Motor Skills. Each domain is further subdivided into subdomains that describe skill areas. Target behaviors that are critical to the individual's adaptive functioning are identified within each of the skill areas. These target behaviors define the breadth of skills needed for adaptive functioning and the developmental sequence for their acquisition. This structure of adaptive behavior functioning is supported by:

- Vineland ABS
- American Association on Mental Retardation (2002)
- American Psychological Association (1996)
- National Academy of Sciences (2002)

Empirical Linkage

Representative sample of domain

The stages of content development described in Chapter 6 provide some of the evidence needed to demonstrate that the representative sample of behaviors in the Vineland–II is consistent with the theoretical construct of adaptive behavior. Important steps included justifying the theoretical structure, defining the content and test blueprint, and evaluating the representativeness of the content, all of which provide evidence of the linkage of test content to the important behaviors and skills needed for adaptive functioning. These documented methods constitute primary evidence for the inference that information about the behaviors assessed by the Vineland–II can be generalized to the individual's level of adaptive functioning.

Developmental acquisition of skills or behaviors

Another source of evidence supporting the linkage between the concept of adaptive behavior, its theoretical structure, and the test is the Vineland–II standardization data showing that individuals acquire adaptive behaviors in a number of areas over their life span. This is seen in **Table 8.1,** which shows the progression of subdomain mean raw scores for twenty age groups from birth through age 90. Generally, mean subdomain scores increase rapidly during the first few years and continue to increase, but at a slower rate, up through late adolescence, when the rate of increase tapers off. Scores remain relatively stable through the mid-60s, at which point mean scores begin to decline.

The size of the increase in scores from one age group to the next reflects the number of important adaptive behaviors and skills that individuals typically develop at a given age. For example, receptive communication skills, such as listening and attending, begin to develop immediately after birth and are largely developed by the time a child begins school. As a result, scores in the Receptive Subdomain rise dramatically from birth through age 2 and rise steadily up through age 5. In contrast, written communication skills do not typically begin to develop until age 3, and then they continue to develop throughout primary and secondary education. This is reflected in the pattern of mean scores in the Written Subdomain, where mean scores rise at a steady rate up through age 18.

Item-scale structure

Another source of evidence supporting content validity derives from an investigation of item-scale functioning. Tools based on item response theory (IRT; Lord, 1980; Weiss & Davison, 1981) aided in the investigation of the subdomain and domain structure. Important questions included:

- Do these items belong in this domain?
- Do the items fall on the scale of person abilities in an order that is consistent with the theoretical developmental sequence of the behaviors or skills?
- Do these items adequately measure the range of individuals' abilities in this subdomain and domain?

Results confirmed that items belonged to their assigned subdomains and domains, that the range of abilities were well measured, and that the items supported the theoretically expected developmental sequences.

Table 8.1 Means and Standard Deviations of Subdomain Raw Scores, by Age

		Communication						Daily Living Skills						Socialization						Motor Skills[a]			
		Receptive		Expressive		Written		Personal		Domestic		Community		Interpersonal Relationships		Play and Leisure Time		Coping Skills		Gross		Fine	
Age	*N*	Mean	*SD*	Mean	*SD*	Mean	*SD*	Mean	*SD*	Mean	*SD*	Mean	*SD*	Mean	*SD*	Mean	*SD*	Mean	*SD*	Mean	*SD*	Mean	*SD*
0	235	7.1	3.6	11.4	5.6	—	—	5.7	4.2	—	—	—	—	17.5	6.9	6.5	4.8	—	—	11.5	10.1	7.6	6.0
1	235	18.8	6.8	29.3	11.2	—	—	18.1	8.6	3.1	3.1	4.1	3.2	29.2	6.6	17.3	7.2	7.3	5.8	44.5	11.7	20.2	5.8
2	205	25.3	6.1	55.2	18.9	—	—	33.7	12.6	6.7	4.2	8.8	5.4	38.4	9.6	24.3	8.1	14.5	8.3	59.8	10.4	28.8	7.3
3	210	29.1	5.0	73.8	16.7	4.8	3.8	46.8	11.4	10.0	5.6	14.5	6.2	45.7	9.8	31.6	9.1	20.2	9.2	67.7	7.9	39.8	10.1
4	200	31.6	4.7	83.1	14.2	9.3	4.9	56.1	9.4	12.5	5.9	20.8	8.2	50.7	9.6	37.2	8.5	25.5	10.0	72.4	7.3	49.9	10.9
5	240	33.2	4.8	89.7	12.2	15.8	6.1	60.4	8.6	14.9	6.1	26.9	10.8	54.0	9.1	40.9	8.0	28.6	10.2	75.2	4.6	58.9	9.8
6	245	35.1	4.4	96.0	11.2	25.0	6.5	65.8	7.8	19.4	8.0	39.7	13.2	59.1	9.7	46.4	8.0	36.2	11.8	77.7	5.6	65.6	7.0
7	200	35.3	4.6	97.8	10.7	30.1	5.6	67.6	6.7	21.4	8.0	47.2	11.7	60.2	9.1	48.1	7.0	37.6	11.6	—	—	—	—
8	200	36.0	4.3	100.0	10.7	33.4	5.8	69.0	7.0	24.7	10.1	52.3	10.9	63.0	8.7	50.2	7.0	40.0	12.4	—	—	—	—
9	205	36.9	3.7	102.2	10.6	37.0	6.1	70.7	6.4	29.6	9.2	57.0	9.3	65.4	7.7	52.4	6.8	45.7	10.6	—	—	—	—
10	175	37.6	3.2	103.7	8.0	40.0	5.5	72.4	4.9	33.4	9.0	60.0	6.9	66.6	6.2	53.1	5.5	45.1	10.9	—	—	—	—
11	205	38.1	2.6	104.9	4.7	41.6	4.7	73.1	3.8	34.8	8.2	61.7	6.3	67.8	4.7	54.3	4.3	47.6	9.9	—	—	—	—
12–13	285	38.5	2.8	105.4	5.5	44.0	5.1	74.6	4.3	38.8	7.8	64.0	7.6	68.9	5.2	56.1	4.6	50.8	9.2	—	—	—	—
14–15	235	38.9	2.2	106.5	4.3	46.0	4.1	76.6	3.3	41.9	6.7	68.0	6.7	70.7	5.1	58.7	3.9	52.3	8.7	—	—	—	—
16–18	215	39.4	1.8	107.1	3.6	47.7	3.9	78.3	3.5	44.2	4.7	75.6	7.9	73.1	5.0	60.5	4.4	55.5	6.5	—	—	—	—
19–21	85	39.5	1.5	106.7	5.1	47.5	4.9	80.0	3.7	45.0	5.4	83.0	8.6	73.9	3.8	61.2	2.8	56.2	6.7	—	—	—	—
22–31	110	39.8	0.6	107.8	0.9	48.9	2.1	81.0	1.8	46.5	3.5	85.9	4.6	74.9	2.4	61.4	2.3	56.9	6.9	—	—	—	—
32–51	75	39.8	0.6	107.7	0.9	49.2	1.8	81.5	1.0	47.1	2.7	86.7	2.9	75.1	2.1	61.4	1.9	58.7	3.6	—	—	—	—
52–71	80	39.7	0.8	107.4	2.4	48.7	3.0	81.2	1.7	47.2	1.7	86.7	3.6	74.8	2.4	60.8	3.1	58.4	3.5	77.9[b]	4.3[b]	71.5[b]	1.1[b]
72–90	55	39.3	1.7	106.3	4.4	47.3	4.9	80.2	4.3	45.0	6.3	83.1	12.5	73.7	3.6	59.0	6.1	57.6	5.3	71.1	10.2	70.4	2.5

[a] Ages 0–6 and 50–90

[b] Ages 50–51

Evidence Based on Response Process

Validity can also be supported by examining response processes. The Vineland–II provides two types of evidence in this regard: the evaluation of measurement bias, and the assessment of the raters who judge the individual's performance of adaptive behaviors.

Evaluation of Measurement Bias

The evaluation of measurement bias provides evidence to support consistency in the meaning or interpretation of test scores across subgroups of individuals and raters. By evaluating measurement bias, the test developer can identify construct-irrelevant sources of variance that result in systematically higher or lower scores for identifiable groups of individuals. Thus, an item would be considered biased when a defined subgroup of individuals (e.g., males) received a higher or lower score on the item more often than another group (e.g., females) even though the groups had identical total test scores.

Measurement bias was explored at both the item and scale levels. Differential item functioning (DIF) analysis was used to identify items that performed differently in groups of individuals having the same total test score. Those results are discussed in Chapter 6.

At the scale level, the size of the difference between the mean scores obtained by different segments of the population was examined to identify any systematic bias in subdomain, domain, or Adaptive Behavior Composite scores. **Tables 8.2 through 8.4** report means and standard deviations on the Vineland–II subdomains, domains, and Adaptive Behavior Composite for the standardization sample subdivided by sex, socioeconomic status (defined by parental education level), and ethnicity. **Table 8.5** reports the means and standard deviations on the Vineland–II Maladaptive Behavior subscales for the standardization sample divided by sex, socioeconomic status, and ethnicity. This approach provides only an indirect examination of measurement bias because naturally existing population subgroups often vary on a number of dimensions that can affect test performance. For example, ethnic groups in the United States currently differ significantly in socioeconomic status (estimated by parental education level). Because the scores are related to socioeconomic status, a statistical adjustment for this relationship was made in the comparisons of ethnic groups.

Sex differences

Table 8.2 presents mean standard scores for the adaptive behavior subdomains, domains, and Adaptive Behavior Composite by sex for five age ranges: 0–2, 3–6, 7–13, 14–21, and 22–90. The mean scores are very similar for males and females. Table 8.5 presents mean *v*-scale scores by sex for the Maladaptive Behavior subscales for four age ranges: 3–6, 7–13, 14–21, and 22–90. The mean scores are very similar for males and females.

Table 8.2 Means and Standard Deviations of Domain, Subdomain, and Adaptive Behavior Composite Scores, by Age and Sex

	Ages 0–2				Ages 3–6				Ages 7–13				Ages 14–21				Ages 22–90			
	Female		Male		Female		Male		Female		Male		Female		Male		Female		Male	
	Mean	*SD*	Mean	*SD*	Mean	*SD*	Mean	*SD*	Mean	*SD*	Mean	*SD*	Mean	*SD*	Mean	*SD*	Mean	*SD*	Mean	*SD*
Communication	101.3	15.6	98.9	13.4	100.7	15.0	99.1	14.9	102.5	15.1	99.1	16.3	101.3	13.2	97.4	14.9	99.2	11.1	99.6	10.8
Receptive	15.3	3.0	15.1	2.7	15.4	3.0	15.1	3.1	15.0	2.4	14.4	2.7	14.7	1.7	14.0	2.1	15.1	1.7	15.0	1.8
Expressive	15.5	2.8	14.9	2.5	15.3	3.2	15.2	3.1	15.2	3.0	14.9	3.2	15.2	2.1	14.9	2.5	15.2	1.9	15.5	1.4
Written	—	—	—	—	15.4	2.9	14.9	3.0	15.3	2.9	14.6	3.0	14.7	2.3	14.1	2.6	14.8	2.1	14.9	2.1
Daily Living Skills	100.9	15.4	99.0	14.5	100.8	14.5	99.1	15.5	101.4	14.9	99.4	15.3	102.3	13.5	97.5	15.9	100.8	11.3	97.7	13.0
Personal	15.5	2.8	14.8	2.5	15.3	3.0	14.9	3.1	15.2	2.9	14.9	2.8	15.1	2.6	14.3	2.9	15.1	1.8	14.6	2.1
Domestic[a]	14.9[a]	2.8[a]	14.9[a]	2.7[a]	15.3	2.7	15.1	3.0	15.5	2.9	14.8	3.1	15.3	2.4	14.3	3.0	15.4	1.6	14.4	2.5
Community[a]	14.6[a]	3.0[a]	14.6[a]	3.1[a]	15.2	2.9	15.1	2.9	14.9	2.7	15.0	2.8	15.1	2.7	14.7	2.9	14.9	2.4	15.2	2.0
Socialization	101.0	15.4	99.2	14.5	100.2	14.4	99.9	15.6	101.6	14.8	99.3	16.0	101.9	14.0	98.4	14.6	99.2	11.9	99.3	12.3
Interpersonal Relationships	15.3	2.9	15.0	2.7	15.1	2.8	15.1	3.0	14.8	2.5	14.5	2.7	15.4	3.0	15.0	3.0	14.9	2.2	14.9	2.2
Play and Leisure Time	15.2	2.9	14.9	2.8	15.1	2.8	15.2	3.2	14.7	2.8	14.5	3.1	15.2	2.5	15.0	2.7	15.2	2.0	15.3	2.0
Coping Skills[a]	15.0[a]	3.0[a]	14.5[a]	3.1[a]	15.2	2.9	15.0	3.0	15.6	3.0	14.9	3.2	15.4	2.7	14.5	2.9	15.0	2.1	15.0	2.4
Motor Skills[b]	101.0	15.5	100.6	14.0	99.5	14.6	100.3	15.8	—	—	—	—	—	—	—	—	97.3	12.1	100.5	12.6
Gross[b]	15.4	2.7	15.3	2.4	14.5	2.3	15.1	2.8	—	—	—	—	—	—	—	—	14.4	2.6	15.6	2.1
Fine[b]	15.5	3.0	15.5	2.6	15.2	3.0	14.7	2.8	—	—	—	—	—	—	—	—	14.8	1.9	14.6	2.2
Adaptive Behavior Composite	101.2	15.3	99.2	14.0	100.3	14.8	99.5	15.8	101.6	14.8	98.6	15.3	102.1	14.1	97.5	15.7	100.0	13.4	99.0	14.1
N	338		337		448		447		634		636		268		267		160		160	

Note: Scores for domains and Adaptive Behavior Composite are standard scores. Scores for subdomains are *v*-scale scores.

[a] Ages 1–2

[b] Ages 0–6 and 50–90

Differences by socioeconomic status

Table 8.3 presents mean standard scores by socioeconomic status, estimated by education level. For individuals under 25, the mother's education level was used; otherwise the individual's own education level was used. Results indicate that individuals with a lower socioeconomic background (education level not beyond Grade 11) show fewer adaptive behaviors on average when compared to individuals with a high socioeconomic background (at least a high school diploma/GED). The differences, however, are small. Table 8.5 presents mean *v*-scale scores for the Maladaptive Behavior subscales by educational level for four age ranges. The mean scores are very similar across educational levels.

Table 8.3 Means and Standard Deviations of Domain, Subdomain, and Adaptive Behavior Composite Scores, by Mother's Education Level and Age

		Ages 0–2			Ages 3–6			Ages 7–13			Ages 14–21			Ages 22–90		
	Mother's Education Level[a]	*N*	Mean	*SD*	*N*	Mean	*SD*	*N*	Mean	*SD*	*N*	Mean	*SD*	*N*	Mean	*SD*
Communication	11th Grade or Less	127	98.8	16.2	125	91.3	13.6	173	91.5	13.0	73	99.3	15.2	52	92.6	13.1
	High School Graduate or GED	191	99.6	15.9	277	98.7	14.4	407	99.8	15.4	182	98.7	14.6	106	99.7	10.9
	1–3 Years of College	184	99.7	14.1	273	101.2	15.1	394	103.1	15.7	161	99.8	13.4	77	100.9	8.6
	4-Year Degree or Higher	173	102.1	11.9	220	104.7	13.9	296	104.5	15.7	119	99.9	14.1	85	101.9	10.0
Receptive	11th Grade or Less	127	15.1	3.3	125	14.2	3.0	173	13.7	2.8	73	14.4	2.3	52	14.5	2.3
	High School Graduate or GED	191	15.1	2.9	277	15.2	3.1	407	14.7	2.5	182	14.1	2.1	106	15.0	1.8
	1–3 Years of College	184	15.2	2.9	273	15.3	3.0	394	15.0	2.5	161	14.3	1.9	77	15.2	1.2
	4-Year Degree or Higher	173	15.5	2.3	220	15.9	2.9	296	15.0	2.5	119	14.7	1.5	85	15.2	1.7
Expressive	11th Grade or Less	127	14.8	2.8	125	13.3	2.8	173	13.3	2.6	73	14.7	2.7	52	14.8	2.1
	High School Graduate or GED	191	15.1	3.0	277	14.9	3.0	407	14.9	3.0	182	15.0	2.4	106	15.3	1.7
	1–3 Years of College	184	15.1	2.6	273	15.6	3.1	394	15.5	3.1	161	15.3	2.1	77	15.5	1.3
	4-Year Degree or Higher	173	15.8	2.1	220	16.2	3.0	296	15.8	3.0	119	14.9	2.2	85	15.5	1.5
Written	11th Grade or Less	—	—	—	125	13.7	2.9	173	13.4	2.5	73	14.4	2.7	52	13.3	2.7
	High School Graduate or GED	—	—	—	277	14.9	2.9	407	14.7	3.0	182	14.4	2.5	106	15.0	2.1
	1–3 Years of College	—	—	—	273	15.4	3.1	394	15.3	2.9	161	14.5	2.4	77	15.1	1.8
	4-Year Degree or Higher	—	—	—	220	16.0	2.7	296	15.6	2.9	119	14.4	2.4	85	15.4	1.6
Daily Living Skills	11th Grade or Less	127	100.3	17.2	125	94.7	14.4	173	93.6	14.6	73	99.5	16.8	52	95.3	15.6
	High School Graduate or GED	191	99.1	15.2	277	100.1	14.9	407	100.2	15.4	182	100.0	14.9	106	100.8	10.9
	1–3 Years of College	184	101.3	14.8	273	101.9	14.9	394	103.2	14.4	161	101.0	14.8	77	98.5	12.1
	4-Year Degree or Higher	173	99.3	13.0	220	100.4	15.1	296	100.9	14.7	119	98.4	14.1	85	100.5	11.3
Personal	11th Grade or Less	127	15.3	3.2	125	14.8	3.1	173	14.2	2.5	73	14.5	3.2	52	14.2	2.5
	High School Graduate or GED	191	15.0	2.8	277	15.5	3.2	407	15.2	3.0	182	14.7	2.8	106	15.2	1.7
	1–3 Years of College	184	15.3	2.7	273	15.1	3.0	394	15.4	2.8	161	14.9	2.5	77	14.4	2.0
	4-Year Degree or Higher	173	14.9	2.2	220	14.8	3.0	296	15.1	2.9	119	14.5	2.8	85	15.1	1.8
Domestic[b]	11th Grade or Less	79	14.9[b]	3.0[b]	125	14.2	2.7	173	14.2	3.1	73	15.0	3.1	52	14.8	2.5
	High School Graduate or GED	131	14.6[b]	2.7[b]	277	15.0	2.7	407	15.1	3.0	182	14.8	2.7	106	15.1	1.8
	1–3 Years of College	116	15.1[b]	2.8[b]	273	15.7	2.8	394	15.6	3.0	161	15.0	2.7	77	14.8	2.2
	4-Year Degree or Higher	114	15.0[b]	2.6[b]	220	15.4	2.9	296	15.3	3.0	119	14.5	2.6	85	14.8	2.3
Community[b]	11th Grade or Less	79	14.2[b]	3.2[b]	125	13.8	3.0	173	13.5	2.9	73	14.6	3.0	52	13.9	2.8
	High School Graduate or GED	131	14.5[b]	3.3[b]	277	15.1	2.8	407	14.8	2.7	182	15.0	2.7	106	15.1	2.2
	1–3 Years of College	116	14.9[b]	2.9[b]	273	15.7	2.8	394	15.6	2.7	161	15.0	2.9	77	15.3	2.0
	4-Year Degree or Higher	114	14.7[b]	2.8[b]	220	15.4	2.7	296	15.1	2.6	119	14.9	2.6	85	15.4	1.8
Socialization	11th Grade or Less	127	96.1	15.8	125	92.3	14.4	173	93.9	14.6	73	100.2	16.2	52	95.9	14.4
	High School Graduate or GED	191	99.1	15.7	277	99.2	15.0	407	99.7	15.8	182	97.9	14.6	106	99.9	11.4
	1–3 Years of College	184	102.5	14.8	273	102.2	14.9	394	102.8	15.7	161	101.8	13.0	77	99.0	12.4
	4-Year Degree or Higher	173	101.5	12.9	220	102.8	13.7	296	102.1	13.9	119	101.5	14.4	85	100.8	10.7

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Table 8.3, *continued*

	Mother's Education Level[a]	Ages 0–2			Ages 3–6			Ages 7–13			Ages 14–21			Ages 22–90		
		N	Mean	*SD*	*N*	Mean	*SD*	*N*	Mean	*SD*	*N*	Mean	*SD*	*N*	Mean	*SD*
Interpersonal Relationships	11th Grade or Less	127	14.6	3.1	125	13.6	3.1	173	13.6	2.7	73	15.2	3.2	52	14.4	2.5
	High School Graduate or GED	191	14.8	3.1	277	15.1	2.9	407	14.6	2.6	182	15.1	3.1	106	15.0	2.1
	1–3 Years of College	184	15.5	2.7	273	15.6	2.9	394	15.0	2.6	161	15.4	2.8	77	14.8	2.2
	4-Year Degree or Higher	173	15.5	2.3	220	15.6	2.6	296	14.9	2.4	119	15.3	2.9	85	15.0	2.0
Play and Leisure Time	11th Grade or Less	127	14.0	3.0	125	13.8	3.0	173	13.6	3.2	73	15.0	2.8	52	15.0	2.4
	High School Graduate or GED	191	15.1	2.9	277	14.9	3.0	407	14.4	3.0	182	14.6	2.8	106	15.1	2.2
	1–3 Years of College	184	15.6	2.9	273	15.4	2.9	394	14.9	2.9	161	15.4	2.3	77	15.1	2.0
	4-Year Degree or Higher	173	15.4	2.6	220	15.8	2.8	296	15.0	2.7	119	15.4	2.4	85	15.5	1.5
Coping Skills[b]	11th Grade or Less	79	14.0[b]	3.3[b]	125	13.8	2.7	173	14.2	3.0	73	14.8	3.0	52	14.0	2.9
	High School Graduate or GED	131	14.6[b]	3.1[b]	277	14.9	3.0	407	15.1	3.1	182	14.5	2.8	106	15.3	2.0
	1–3 Years of College	116	15.3[b]	3.1[b]	273	15.6	3.0	394	15.8	3.2	161	15.4	2.8	77	15.0	2.2
	4-Year Degree or Higher	114	14.9[b]	2.9[b]	220	15.6	2.9	296	15.5	3.0	119	15.1	2.8	85	15.2	2.0
Motor Skills[c]	11th Grade or Less	127	96.0	17.2	125	96.1	13.9	—	—	—	—	—	—	35	92.6	13.0
	High School Graduate or GED	191	101.5	15.7	277	99.3	15.7	—	—	—	—	—	—	47	98.5	13.6
	1–3 Years of College	184	101.7	13.7	273	101.3	15.4	—	—	—	—	—	—	28	101.2	6.9
	4-Year Degree or Higher	173	102.6	12.0	220	101.0	14.7	—	—	—	—	—	—	30	104.8	10.7
Gross[c]	11th Grade or Less	127	14.9	2.8	125	14.3	2.6	—	—	—	—	—	—	35	14.5	2.6
	High School Graduate or GED	191	15.5	2.8	277	14.7	2.7	—	—	—	—	—	—	47	14.7	2.8
	1–3 Years of College	184	15.4	2.5	273	15.0	2.5	—	—	—	—	—	—	28	15.1	1.6
	4-Year Degree or Higher	173	15.3	2.1	220	14.9	2.4	—	—	—	—	—	—	30	16.1	1.8
Fine[c]	11th Grade or Less	127	14.4	3.3	125	14.3	2.9	—	—	—	—	—	—	35	13.5	2.2
	High School Graduate or GED	191	15.5	2.9	277	14.8	3.0	—	—	—	—	—	—	47	15.0	2.2
	1–3 Years of College	184	15.7	2.6	273	15.2	2.9	—	—	—	—	—	—	28	15.4	1.4
	4-Year Degree or Higher	173	16.1	2.3	220	15.2	2.7	—	—	—	—	—	—	30	15.3	1.7
Adaptive Behavior Composite	11th Grade or Less	127	97.4	16.6	125	92.3	14.0	173	91.9	13.2	73	100.0	16.4	52	94.0	16.3
	High School Graduate or GED	191	99.6	15.7	277	99.1	15.1	407	99.4	15.3	182	98.7	15.3	106	100.2	13.1
	1–3 Years of College	184	101.5	14.3	273	101.9	15.5	394	102.8	14.9	161	101.0	14.5	77	99.5	12.9
	4-Year Degree or Higher	173	101.4	12.0	220	102.6	14.6	296	102.2	14.4	119	99.7	14.7	85	101.9	12.9

Note: Scores for domains and Adaptive Behavior Composite are standard scores. Scores for subdomains are *v*-scale scores.

[a] For ages 0 through 25, if mother's or female guardian's education level was not reported, father's or male guardian's education level was used. Participant's education level was used for ages 26 and above.

[b] Ages 1–2

[c] Ages 0–6 and 50–90

Ethnic group differences

Table 8.4 presents the unadjusted and adjusted mean standard scores for three ethnic groups, and a fourth sample that includes all other ethnic groups. The adjusted mean represents the value after controlling for the effects of socioeconomic status and sex. Because SES levels vary across ethnic groups, the size and direction of the adjustment varies. The difference between the adjusted and unadjusted means was generally less than two standard score points for the Adaptive Behavior Composite, and the statistical adjustment had the anticipated effect of reducing overall group differences, particularly among individuals aged 7 and older.

Domains and Adaptive Behavior Composite mean score differences do not display a consistent trend across age groups, and the differences that were found were considered small.

Table 8.5 presents unadjusted and adjusted mean *v*-scale scores on the Maladaptive subscales by ethnicity. Generally mean scores were similar across groups. Within each age range, the differences between the highest and lowest mean score is less than 1.5 *v*-scale score points, except for the group aged 14 thorough 21 in which the differences between the adjusted mean for African Americans and the Other group are 2 points.

Table 8.4 Means and Standard Deviations of Domain, Subdomain, and Adaptive Behavior Composite Scores, by Age and Race/Ethnicity, Adjusted for Sex and Education Level

	Race/ Ethnicity	Ages 0–2				Ages 3–6				Ages 7–13				Ages 14–21				Ages 22–90			
			Unadjusted		Adj		Unadjusted		Adj		Unadjusted		Adj		Unadjusted		Adj		Unadjusted		Adj
		N	Mean	*SD*	Mean	*N*	Mean	*SD*	Mean	*N*	Mean	*SD*	Mean	*N*	Mean	*SD*	Mean	*N*	Mean	*SD*	Mean
Communication	African American	106	103.0	16.8	102.6	148	103.1	15.6	103.4	211	100.5	15.7	99.1	85	97.9	16.2	96.4	35	95.9	10.9	96.5
	Hispanic	137	96.4	14.9	95.9	172	95.2	14.6	96.1	232	96.3	15.6	96.9	93	99.0	13.7	97.6	42	98.0	9.8	98.7
	White	383	100.6	13.3	98.9	509	100.9	14.6	99.1	745	102.3	15.7	99.7	331	100.0	13.8	97.9	229	100.4	10.8	99.6
	Other[a]	49	100.3	16.4	99.6	66	97.1	14.6	98.5	82	101.0	15.7	99.8	26	97.3	13.7	95.1	14	95.6	14.5	94.8
Receptive	African American	106	15.7	3.2	15.7	148	15.9	3.3	15.9	211	14.8	2.5	14.5	85	13.9	2.5	13.7	35	14.8	1.9	14.7
	Hispanic	137	14.6	2.9	14.6	172	14.8	2.9	14.9	232	14.3	2.7	14.2	93	14.5	1.8	14.3	42	14.9	1.5	14.9
	White	383	15.3	2.6	15.1	509	15.2	3.1	15.0	745	14.8	2.6	14.4	331	14.4	1.8	14.0	229	15.1	1.7	15.0
	Other[a]	49	15.0	3.2	15.0	66	15.0	2.6	15.2	82	14.8	2.4	14.5	26	14.4	1.8	14.1	14	14.6	2.1	14.5
Expressive	African American	106	15.7	2.9	15.6	148	15.9	3.3	16.1	211	15.1	3.2	15.0	85	14.9	2.7	14.8	35	15.2	1.9	15.5
	Hispanic	137	14.4	2.8	14.3	172	14.0	2.9	14.3	232	14.1	3.0	14.4	93	14.8	2.2	14.7	42	15.6	1.4	15.8
	White	383	15.3	2.4	14.9	509	15.6	3.0	15.4	745	15.4	3.0	15.1	331	15.2	2.2	15.0	229	15.4	1.6	15.4
	Other[a]	49	15.4	3.0	15.2	66	13.7	3.1	14.1	82	14.9	3.2	14.8	26	14.3	2.6	14.1	14	14.7	2.6	14.8
Written	African American	—	—	—	—	148	15.4	3.1	15.3	211	14.8	3.0	14.5	85	14.2	2.8	14.0	35	14.1	2.3	14.1
	Hispanic	—	—	—	—	172	14.4	3.2	14.5	232	14.2	3.0	14.3	93	14.4	2.5	14.1	42	14.3	2.3	14.4
	White	—	—	—	—	509	15.3	2.8	14.8	745	15.2	2.9	14.6	331	14.5	2.4	14.2	229	15.1	2.0	14.9
	Other[a]	—	—	—	—	66	15.4	3.2	15.6	82	15.1	3.1	14.9	26	14.4	2.1	14.1	14	13.9	2.8	13.7
Daily Living Skills	African American	106	105.2	17.0	104.4	148	104.7	14.2	104.3	211	101.9	14.5	101.0	85	99.5	16.4	97.4	35	95.3	12.6	92.9
	Hispanic	137	95.9	15.3	95.1	172	95.6	15.3	95.5	232	94.7	14.9	94.6	93	96.7	13.3	94.2	42	97.8	12.5	95.7
	White	383	100.1	13.5	99.2	509	100.5	14.9	99.5	745	101.6	14.9	100.2	331	100.8	14.7	98.6	229	100.3	11.7	98.3
	Other[a]	49	98.7	16.6	98.0	66	96.5	13.6	96.6	82	101.8	16.0	101.0	26	100.9	17.3	98.2	14	97.2	17.2	95.6
Personal	African American	106	16.0	3.0	15.6	148	16.3	2.8	16.0	211	15.1	2.9	15.0	85	14.6	3.1	14.3	35	14.5	2.2	14.1
	Hispanic	137	14.4	2.8	14.0	172	14.7	3.3	14.5	232	14.3	2.6	14.2	93	14.0	2.6	13.5	42	14.5	2.1	14.2
	White	383	15.1	2.4	14.9	509	14.9	3.0	14.7	745	15.3	2.8	15.1	331	14.9	2.6	14.5	229	14.9	1.9	14.6
	Other[a]	49	15.1	3.3	14.8	66	15.0	2.9	14.7	82	15.3	3.3	15.1	26	14.3	3.2	13.9	14	14.4	2.7	14.2
Domestic	African American	75	15.7[b]	3.1[b]	15.8[b]	148	15.6	2.8	15.6	211	15.5	2.9	15.2	85	15.2	3.1	14.8	35	15.1	1.8	14.4
	Hispanic	84	14.1[b]	2.5[b]	14.2[b]	172	14.5	2.9	14.5	232	14.1	2.9	13.9	93	14.6	2.5	14.1	42	14.8	2.1	14.1
	White	248	14.9[b]	2.7[b]	14.9[b]	509	15.4	2.8	15.3	745	15.4	3.0	15.0	331	14.8	2.7	14.2	229	14.9	2.2	14.5
	Other[a]	33	14.5[b]	2.6[b]	14.4[b]	66	14.3	2.6	14.5	82	15.4	3.2	15.0	26	14.8	2.9	14.2	14	14.9	2.3	14.6
Community	African American	75	16.2[b]	3.4[b]	16.5[b]	148	16.0	2.8	16.0	211	15.3	2.8	15.4	85	14.2	3.1	14.1	35	13.7	3.0	13.9
	Hispanic	84	13.7[b]	3.1[b]	14.0[b]	172	14.1	3.0	14.2	232	14.0	3.0	14.3	93	14.5	2.7	14.4	42	15.0	2.4	15.1
	White	248	14.5[b]	2.8[b]	14.3[b]	509	15.4	2.7	15.2	745	15.1	2.6	15.0	331	15.2	2.8	15.0	229	15.3	1.9	15.2
	Other[a]	33	13.8[b]	3.2[b]	13.8[b]	66	14.4	3.0	14.6	82	15.2	3.1	15.3	26	15.5	2.5	15.4	14	14.4	3.2	14.3
Socialization	African American	106	101.9	17.0	102.2	148	102.0	15.3	102.7	211	100.5	16.1	99.5	85	96.3	15.7	95.2	35	94.4	12.1	94.4
	Hispanic	137	95.2	15.9	95.3	172	95.4	15.0	96.4	232	95.9	14.6	96.1	93	99.3	14.9	98.5	42	98.8	12.3	98.8
	White	383	101.5	13.6	99.8	509	102.0	14.4	101.3	745	101.6	15.2	100.0	331	101.3	13.9	99.4	229	100.2	11.5	99.7
	Other[a]	49	98.7	15.1	98.3	66	93.1	13.9	94.5	82	102.5	15.8	101.6	26	101.1	11.9	99.3	14	97.4	17.7	96.9
Interpersonal Relationships	African American	106	15.5	3.2	15.6	148	15.5	2.9	15.6	211	14.8	2.7	14.6	85	14.6	3.3	14.5	35	14.6	2.2	14.6
	Hispanic	137	14.4	3.0	14.4	172	14.4	3.0	14.6	232	13.9	2.8	13.9	93	15.4	3.0	15.3	42	14.8	2.1	14.8
	White	383	15.3	2.6	15.0	509	15.5	2.7	15.4	745	14.9	2.5	14.6	331	15.3	2.9	15.1	229	15.0	2.1	14.9
	Other[a]	49	14.9	2.8	14.9	66	13.2	3.0	13.5	82	14.9	2.8	14.7	26	15.1	2.7	14.9	14	14.1	2.8	14.1
Play and Leisure Time	African American	106	15.2	3.3	15.3	148	15.5	3.2	15.7	211	14.6	3.2	14.5	85	14.4	3.2	14.4	35	14.6	2.6	14.6
	Hispanic	137	14.2	2.9	14.3	172	14.1	2.9	14.3	232	13.9	2.8	14.0	93	14.6	2.6	14.7	42	14.9	2.1	14.9
	White	383	15.4	2.6	15.1	509	15.5	2.9	15.5	745	14.8	2.9	14.7	331	15.4	2.4	15.2	229	15.4	1.8	15.4
	Other[a]	49	14.9	3.2	14.9	66	14.1	2.8	14.4	82	14.9	3.3	15.0	26	15.3	2.7	15.2	14	14.7	2.6	14.7
Coping Skills	African American	75	15.5[b]	3.3[b]	15.5[b]	148	15.5	2.9	15.5	211	15.2	3.1	14.9	85	14.3	3.2	14.0	35	14.2	2.5	14.2
	Hispanic	84	13.4[b]	3.3[b]	13.4[b]	172	14.4	3.1	14.5	232	14.6	3.1	14.5	93	14.8	3.0	14.5	42	15.1	2.3	15.1
	White	248	15.0[b]	2.8[b]	14.6[b]	509	15.4	2.9	15.1	745	15.5	3.1	15.0	331	15.1	2.7	14.6	229	15.0	2.2	14.9
	Other[a]	33	14.3[b]	2.7[b]	14.1[b]	66	14.3	2.6	14.5	82	15.7	3.0	15.4	26	15.6	2.3	15.1	14	15.5	2.2	15.4

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Table 8.4, *continued*

	Race/ Ethnicity	Ages 0–2				Ages 3–6				Ages 7–13				Ages 14–21				Ages 22–90			
			Unadjusted		Adj		Unadjusted		Adj		Unadjusted		Adj		Unadjusted		Adj		Unadjusted		Adj
		N	Mean	*SD*	Mean	*N*	Mean	*SD*	Mean	*N*	Mean	*SD*	Mean	*N*	Mean	*SD*	Mean	*N*	Mean	*SD*	Mean
Motor Skills[c]	African American	106	103.4	18.2	104.4	148	102.7	16.1	103.6	—	—	—	—	—	—	—	—	12	93.8	13.9	96.4
	Hispanic	137	96.5	16.4	97.3	172	96.7	13.9	97.7	—	—	—	—	—	—	—	—	12	88.6	13.4	**92.0**
	White	383	102.1	12.3	101.1	509	100.5	15.3	100.6	—	—	—	—	—	—	—	—	111	100.8	11.4	101.2
	Other[a]	49	97.3	16.6	97.7	66	97.6	14.4	98.8	—	—	—	—	—	—	—	—	5	93.2	15.1	**93.8**
Gross[c]	African American	106	16.0	2.8	16.1	148	15.3	2.6	15.7	—	—	—	—	—	—	—	—	12	14.6	2.9	15.4
	Hispanic	137	14.8	2.7	14.9	172	14.6	2.6	15.0	—	—	—	—	—	—	—	—	12	13.4	3.1	**14.2**
	White	383	15.4	2.3	15.3	509	14.8	2.5	15.1	—	—	—	—	—	—	—	—	111	15.3	2.2	15.7
	Other[a]	49	14.7	2.8	14.7	66	13.8	2.7	14.2	—	—	—	—	—	—	—	—	5	15.0	1.9	**15.4**
Fine[c]	African American	106	15.6	3.5	15.9	148	15.3	3.0	15.2	—	—	—	—	—	—	—	—	12	13.8	2.2	13.8
	Hispanic	137	14.5	3.1	14.7	172	14.1	2.7	14.1	—	—	—	—	—	—	—	—	12	13.5	2.2	13.7
	White	383	15.8	2.3	15.6	509	15.1	2.9	14.8	—	—	—	—	—	—	—	—	111	15.1	1.9	14.8
	Other[a]	49	15.1	3.1	15.2	66	15.3	2.9	15.2	—	—	—	—	—	—	—	—	5	13.2	3.0	13.0
Adaptive Behavior Composite	African American	106	104.0	17.3	103.9	148	103.7	15.5	104.1	211	100.5	14.8	99.2	85	97.8	17.2	96.0	35	93.7	13.5	92.9
	Hispanic	137	95.1	15.2	94.9	172	94.8	14.6	95.7	232	94.7	14.5	94.8	93	98.0	14.4	96.1	42	98.0	13.7	97.4
	White	383	101.1	12.9	99.5	509	101.1	15.1	100.0	745	101.5	15.0	99.5	331	100.8	14.7	98.5	229	100.8	13.4	99.4
	Other[a]	49	98.4	16.7	97.9	66	95.1	13.6	96.4	82	101.4	15.3	100.3	26	99.5	14.9	96.9	14	96.6	17.6	95.4

Note: Scores for domains and Adaptive Behavior Composite are standard scores. Scores for subdomains are *v*-scale scores.

[a] Includes American Indians, Alaska Natives, Asians, Pacific Islanders, and all other groups not classified as African American, Hispanic, or White

[b] Ages 1–2

[c] Ages 0–6 and 50–90

Table 8.5 Means and Standard Deviations of Maladaptive Behavior Scales and Index, by Age, Sex, Race/Ethnicity, and Mother's Education Level

	Maladaptive Behavior Scales	Ages 3–6				Ages 7–13				Ages 14–21				Ages 22–90			
			Unadjusted		Adj		Unadjusted		Adj		Unadjusted		Adj		Unadjusted		Adj
		N	Mean	*SD*	Mean	*N*	Mean	*SD*	Mean	*N*	Mean	*SD*	Mean	*N*	Mean	*SD*	Mean
Female	Internalizing	447	15.0	2.8	—	634	15.1	2.5	—	268	15.1	2.6	—	160	15.7	2.7	—
	Externalizing	447	14.8	2.8	—	634	14.5	2.6	—	268	14.9	2.2	—	160	15.4	2.0	—
	Maladaptive Behavior Index	447	14.8	2.8	—	634	14.9	2.5	—	268	14.9	2.6	—	160	15.2	2.9	—
Male	Internalizing	446	15.2	2.8	—	636	15.4	2.6	—	267	15.2	2.7	—	160	15.1	2.0	—
	Externalizing	446	15.0	2.9	—	636	15.3	3.0	—	267	15.7	2.5	—	160	15.6	2.3	—
	Maladaptive Behavior Index	446	15.2	2.8	—	636	15.5	2.8	—	267	15.5	2.7	—	160	15.0	2.7	—
African American	Internalizing	147	15.4	2.8	15.3	211	15.4	2.5	15.6	85	16.2	2.9	16.3	35	16.0	2.5	15.5
	Externalizing	147	14.8	3.1	14.9	211	15.3	2.9	15.6	85	16.0	2.6	16.3	35	15.5	2.3	15.7
	Maladaptive Behavior Index	147	15.1	2.8	15.2	211	15.5	2.7	15.8	85	16.1	3.0	16.3	35	15.3	3.1	15.2
Hispanic	Internalizing	172	15.4	3.0	15.3	232	15.3	2.8	15.3	93	14.8	2.7	14.9	42	15.1	2.2	14.7
	Externalizing	172	14.6	3.0	14.6	232	14.6	3.1	14.8	93	15.0	2.6	15.4	42	15.3	2.1	15.5
	Maladaptive Behavior Index	172	15.0	3.2	15.1	232	15.0	3.0	15.1	93	14.8	3.1	15.0	42	14.5	2.4	14.5
White	Internalizing	508	14.9	2.7	15.1	745	15.1	2.5	15.4	331	15.1	2.5	15.1	229	15.4	2.3	15.1
	Externalizing	508	15.1	2.8	15.3	745	15.0	2.7	15.4	331	15.3	2.3	15.6	229	15.6	2.2	15.7
	Maladaptive Behavior Index	508	15.0	2.7	15.3	745	15.2	2.5	15.5	331	15.2	2.5	15.5	229	15.2	2.8	15.1
Other[a]	Internalizing	66	15.4	2.9	15.3	82	15.3	2.9	15.4	26	14.4	2.2	14.5	14	15.2	3.0	15.0
	Externalizing	66	13.8	2.3	13.7	82	14.5	2.8	14.8	26	14.3	1.8	14.7	14	14.5	1.4	14.6
	Maladaptive Behavior Index	66	14.4	2.8	14.4	82	15.0	3.0	15.2	26	13.9	2.2	14.3	14	14.4	3.1	14.3
11th Grade or Less	Internalizing	125	15.7	3.0	—	173	15.8	2.9	—	73	14.7	2.5	—	52	15.7	2.5	—
	Externalizing	125	14.9	2.9	—	173	15.6	3.5	—	73	14.7	2.2	—	52	16.0	2.8	—
	Maladaptive Behavior Index	125	15.4	3.0	—	173	15.8	3.2	—	73	14.5	2.7	—	52	15.3	3.3	—
High School Graduate or GED	Internalizing	276	15.3	2.9	—	407	15.3	2.6	—	182	15.3	2.8	—	106	15.3	2.4	—
	Externalizing	276	15.0	2.9	—	407	15.0	2.8	—	182	15.4	2.5	—	106	14.9	1.7	—
	Maladaptive Behavior Index	276	15.2	3.0	—	407	15.2	2.7	—	182	15.5	2.8	—	106	14.6	2.6	—
1–3 Years of College	Internalizing	272	15.1	2.7	—	394	15.0	2.5	—	161	15.1	2.6	—	77	15.4	2.3	—
	Externalizing	272	15.0	2.8	—	394	14.8	2.7	—	161	15.4	2.5	—	77	15.6	2.3	—
	Maladaptive Behavior Index	272	15.0	2.7	—	394	15.1	2.6	—	161	15.3	2.7	—	77	15.4	2.6	—
4-Year Degree or Higher	Internalizing	220	14.5	2.6	—	296	15.0	2.4	—	119	15.3	2.4	—	85	15.4	2.4	—
	Externalizing	220	14.5	2.8	—	296	14.7	2.5	—	119	15.2	2.2	—	85	15.7	2.1	—
	Maladaptive Behavior Index	220	14.5	2.7	—	296	14.9	2.4	—	119	15.0	2.4	—	85	15.4	2.8	—

[a] Includes American Indians, Alaska Natives, Asians, Pacific Islanders, and all other groups not classified as African American, Hispanic, or White

Assessment of Rating Process

Administration of the Vineland–II requires an examiner or rater to evaluate an individual's performance of adaptive behaviors. The Vineland–II used two techniques during design and development to improve consistency across methods. First, each item was carefully written and reviewed. Content experts identified any items that might be ambiguous or misunderstood. Second, the Vineland–II provided scoring rules that clearly defined the criteria to use when scoring the item. The fact that the Survey Interview Form and the Parent/Caregiver Rating Form yield comparable raw scores (see Chapter 6) provides evidence of the validity of the rating process.

Evidence Based on Test Structure

The analysis of internal structure provides evidence indicating the degree to which the relationship among the subdomains and domains conforms to the theory on which the Vineland–II test score interpretation is based. The Vineland–II is based on four adaptive behavior domains that include a broad array of adaptive behaviors and, together, constitute overall adaptive behavior functioning. It also defines subdomains within each domain that represent relatively homogenous components. This hierarchical structure of adaptive behavior is examined through the intercorrelations of the subdomains and a hierarchical confirmatory factor analysis.

Intercorrelations of Subdomain, Domain, and Adaptive Behavior Composite Scores

The correlations between subdomains, domains, and the Adaptive Behavior Composite at five age ranges are presented in **Tables 8.6 through 8.8.** The correlations between subdomains within a domain are enclosed with a line to make them easier to identify, and the domain correlations are set in boldface to distinguish them from subdomain correlations. Tables 8.6 and 8.7 each contain correlations for two age groups; one age group is reported above the diagonal line and the other below the diagonal line.

Generally, correlations between subdomains are moderate in size, and are higher at younger than older ages. Subdomain correlations within a domain tend to be larger than those between domains. Overall, however, the amount of subdomain clustering is modest, implying that there are functional relationships among adaptive behaviors in different subdomains. For example, forms of personal expression that are appropriate for very young children, such as smiling, are also the rudimentary building blocks of interpersonal relationships; and early motor skills, such as reaching for an object or a person, coincide with preverbal forms of communication. The Socialization subdomains are relatively tightly correlated (e.g., at ages 3 through 6 their intercorrelations are .73, .72, and .71) and distinct from other domains at all age groups except the adult group.

Factor Structure

The pattern of intercorrelation coefficients among subdomains provides only indirect evidence of internal structure validity. *Confirmatory factor analysis* provides a more sophisticated insight into the theoretical structure of the Vineland–II. This method, like exploratory factor analysis, attempts to account for the interrelationships among many variables by hypothesizing that each variable is a function of a small number of *factors*. In exploratory analysis, the analyst places very few constraints on the characteristics of the model (i.e., how factors are related to variables and to one another), allowing a data-driven solution to emerge based on the program algorithms. Exploratory factor analysis often is used to generate ideas about the structure of an instrument. With confirmatory factor analysis, the analyst specifies the model structure prior to the analysis, and the program determines the strength of the relationships among observed variables and unobserved factors and indicates how well the model fits the actual data.

The Vineland–II has a well-defined theoretical structure of a hierarchy of subdomains, domains, and an overall composite. Therefore, confirmatory factor analysis was an appropriate method for evaluating the fit of this structure to the data, as well as the fit of alternative structures. The fit of each hypothesized structure was used to determine the most appropriate model.

Table 8.6 Intercorrelation Coefficients of Domain, Subdomain, and Adaptive Behavior Composite Scores, Ages 0–2 and Ages 3–6

	Communication Domain	Receptive	Expressive	Written	Daily Living Skills Domain	Personal	Domestic[a]	Community[a]	Socialization Domain	Interpersonal Relationships	Play and Leisure Time	Coping Skills[a]	Motor Skills Domain	Gross	Fine	Adaptive Behavior Composite
Communication	—	.91	.89	—	.58	.55	.51	.57	.65	.66	.52	.61	.56	.48	.54	.83
Receptive	.83	—	.65	—	.53	.50	.50	.51	.57	.57	.47	.57	.52	.47	.49	.75
Expressive	.88	.67	—	—	.54	.52	.45	.55	.62	.65	.50	.56	.52	.43	.52	.76
Written	.77	.40	.52	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily Living Skills	.68	.57	.66	.47	—	.88	.82	.87	.62	.56	.51	.68	.58	.52	.53	.83
Personal	.53	.47	.50	.34	.85	—	.52	.57	.56	.53	.48	.57	.57	.53	.51	.77
Domestic[a]	.54	.48	.53	.32	.85	.58	—	.61	.56	.50	.46	.53	.48	.43	.44	.68
Community[a]	.68	.50	.65	.53	.84	.56	.60	—	.62	.54	.51	.61	.54	.46	.49	.74
Socialization	.70	.60	.72	.41	.73	.57	.62	.68	—	.88	.89	.86	.63	.53	.60	.87
Interpersonal Relationships	.64	.54	.69	.36	.67	.52	.57	.62	.90	—	.67	.63	.57	.48	.55	.80
Play and Leisure Time	.63	.55	.64	.39	.65	.50	.54	.60	.90	.73	—	.63	.60	.50	.57	.76
Coping Skills[a]	.61	.54	.62	.36	.66	.52	.55	.62	.90	.72	.71	—	.56	.49	.53	.78
Motor Skills	.61	.47	.58	.48	.63	.53	.51	.55	.62	.56	.57	.53	—	.86	.88	.82
Gross	.42	.34	.43	.28	.46	.40	.37	.38	.49	.46	.46	.42	.83	—	.56	.71
Fine	.61	.45	.55	.52	.61	.51	.50	.55	.56	.50	.52	.49	.87	.46	—	.76
Adaptive Behavior Composite	.87	.72	.82	.61	.88	.72	.73	.79	.88	.80	.80	.78	.83	.64	.77	—

Note: Scores for domains and Adaptive Behavior Composite are standard scores. Scores for subdomains are *v*-scale scores. Ages 0–2 are presented above the diagonal; ages 3–6 are presented below the diagonal.

Ages 0–2, $N = 675$

Ages 3–6, $N = 895$

[a] Ages 1–2, $N = 440$

Table 8.7 Intercorrelation Coefficients of Domain, Subdomain, and Adaptive Behavior Composite Scores, Ages 7–13 and Ages 14–21

	Communication Domain	Receptive	Expressive	Written	Daily Living Skills Domain	Personal	Domestic	Community	Socialization Domain	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Adaptive Behavior Composite
Communication	—	.80	.87	.86	.69	.56	.57	.65	.68	.63	.57	.61	.89
Receptive	.71	—	.62	.52	.48	.37	.44	.45	.58	.55	.48	.53	.68
Expressive	.76	.52	—	.63	.64	.53	.54	.59	.63	.60	.54	.56	.79
Written	.87	.50	.51	—	.63	.54	.49	.62	.56	.51	.50	.48	.77
Daily Living Skills	.61	.38	.50	.58	—	.86	.86	.84	.68	.62	.56	.61	.88
Personal	.55	.32	.46	.53	.82	—	.61	.61	.53	.49	.44	.49	.73
Domestic	.50	.36	.42	.44	.80	.52	—	.58	.58	.53	.47	.53	.75
Community	.48	.31	.43	.48	.79	.49	.45	—	.64	.59	.56	.55	.79
Socialization	.60	.47	.53	.51	.56	.40	.45	.54	—	.86	.85	.89	.88
Interpersonal Relationships	.49	.40	.44	.42	.40	.26	.34	.43	.82	—	.62	.69	.78
Play and Leisure Time	.42	.35	.41	.37	.40	.28	.34	.41	.76	.55	—	.61	.73
Coping Skills	.55	.44	.47	.47	.53	.42	.40	.51	.76	.42	.37	—	.79
Adaptive Behavior Composite	.85	.56	.66	.75	.85	.69	.68	.70	.83	.65	.58	.71	—

Note: Scores for domains and Adaptive Behavior Composite are standard scores. Scores for subdomains are *v*-scale scores. Ages 7–13 are presented above the diagonal; ages 14–21 are presented below the diagonal.

Ages 7–13, $N = 1270$

Ages 14–21, $N = 535$

Table 8.8 Intercorrelation Coefficients of Domain, Subdomain, and Adaptive Behavior Composite Scores, Ages 22–90

	Communication Domain	Receptive	Expressive	Written	Daily Living Skills Domain	Personal	Domestic	Community	Socialization Domain	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Motor Skills Domain	Gross	Fine	Adaptive Behavior Composite
Communication	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Receptive	.74	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Expressive	.74	.44	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Written	.81	.36	.41	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily Living Skills	.53	.29	.42	.51	—	—	—	—	—	—	—	—	—	—	—	—
Personal	.45	.24	.38	.45	.79	—	—	—	—	—	—	—	—	—	—	—
Domestic	.37	.26	.28	.32	.74	.45	—	—	—	—	—	—	—	—	—	—
Community	.45	.22	.37	.44	.77	.47	.32	—	—	—	—	—	—	—	—	—
Socialization	.52	.30	.41	.49	.66	.52	.47	.55	—	—	—	—	—	—	—	—
Interpersonal Relationships	.34	.16	.32	.34	.39	.34	.30	.31	.75	—	—	—	—	—	—	—
Play and Leisure Time	.41	.35	.34	.32	.46	.36	.38	.34	.69	.31	—	—	—	—	—	—
Coping Skills	.41	.22	.30	.44	.59	.46	.38	.55	.76	.37	.31	—	—	—	—	—
Motor Skills[a]	.41	.28	.22	.45	.43	.36	.31	.39	.49	.27	.44	.48	—	—	—	—
Gross[a]	.22	.20	.08	.25	.29	.26	.21	.26	.37	.21	.33	.37	.83	—	—	—
Fine[a]	.45	.25	.27	.50	.41	.34	.32	.38	.43	.23	.39	.42	.78	.33	—	—
Adaptive Behavior Composite	.73	.46	.54	.66	.85	.65	.60	.67	.84	.57	.56	.67	.52	.36	.48	—

Note: Scores for domains and Adaptive Behavior Composite are standard scores. Scores for subdomains are *v*-scale scores.

$N = 320$

[a] Ages 50-90 $N = 140$

For individuals aged 6 and younger the Adaptive Behavior Composite is based on a four-domain structure, so a four-factor structure was used. **Figure 8.1** presents the results of this analysis. The factors corresponding to the domains and the Adaptive Behavior Composite are shown as circles, and the subdomains (observed variables) as rectangles. Arrows represent correlations (loadings) of subdomains with domain-level factors, and of domain-level factors with the overall factor. For individuals aged 7 and older the Adaptive Behavior Composite is based on three domains, so a three-factor structure was used (see **Figures 8.2 through 8.4**).

Figure 8.1 Factor structure and standardized factor loadings of Vineland–II subdomains, ages 3–6

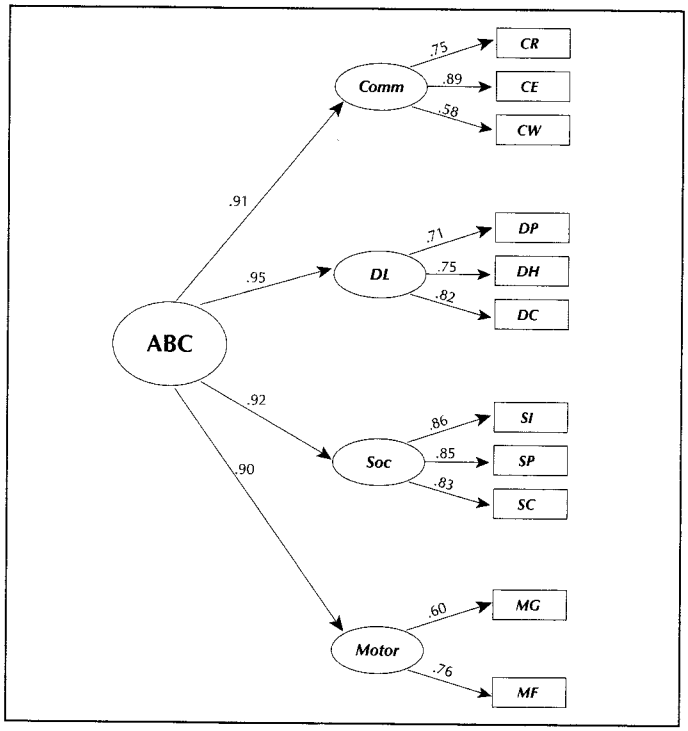


Figure 8.2 Factor structure and standardized factor loadings of Vineland–II subdomains, ages 7–13

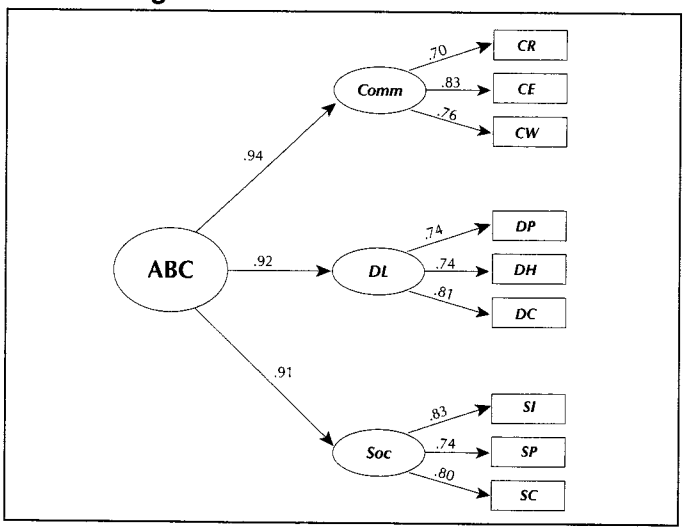


Figure 8.3 Factor structure and standardized factor loadings of Vineland–II subdomains, ages 14–21

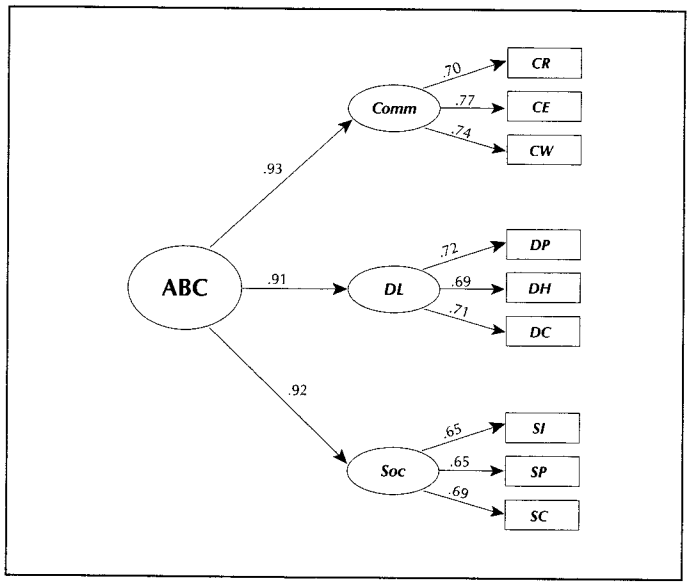


Figure 8.4 Factor structure and standardized factor loadings of Vineland–II subdomains, ages 22–90

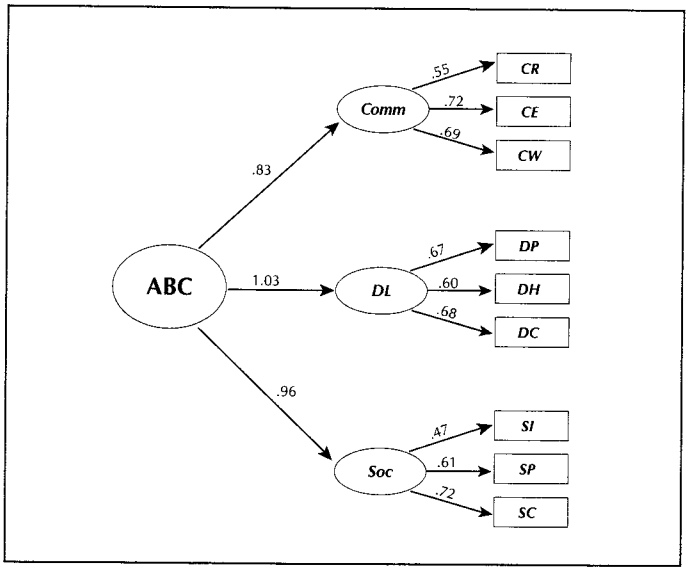


Table 8.9 summarizes the statistical fit of three models for each age group. The *independence model*, which assumes that all correlations between subdomains are zero, is listed first because it provides a baseline to interpret the improvement of fit under models that permit subdomains to correlate. Next, the one-factor model assumes that correlations among subdomains can be explained by their relationship to a single factor, with all remaining variance attributed to random error. Of primary interest is the third model, the three- or four-factor model, which assumes that shared variance among subdomains is explained by several intermediate factors corresponding to the Vineland–II domains.

Table 8.9 Fit Statistics from Confirmatory Factor Analysis of Vineland–II Subdomain *v*-Scale Scores

	N	X^2	*df*	*p*	CFI	RMSEA	Improvement		
							dX^2	*ddf*	*p*
Ages 3–6	895								
Independence Model[a]		5,720.5	55			.34			
1-Factor Solution		507.8	44	<.001	.92	.11	5,212.7	11	<.001
4-Factor Solution		253.3	40	<.001	.96	.08	254.5	4	<.001
Ages 7–14	1395								
Independence Model[b]		6,703.5	36			.37			
1-Factor Solution		501.0	27	<.001	.93	.11	6,202.5	9	<.001
3-Factor Solution		189.5	24	<.001	.98	.07	311.5	3	<.001
Ages 15–21	410								
Independence Model[b]		1,408.2	36			.31			
1-Factor Solution		142.3	27	<.001	.92	.10	1,265.9	9	<.001
3-Factor Solution		99.3	24	<.001	.94	.09	43.0	3	<.001
Ages 22–90	320								
Independence Model[b]		102.4	36			.08			
1-Factor Solution		46.0	27	<.05	.71	.05	56.4	9	<.001
3-Factor Solution		35.3	24	NS	.83	.04	10.6	3	<.05

[a] Model based on 11 subdomains, including the 2 motor subdomains

[b] Model based on 9 subdomains, excluding the 2 motor subdomains

The factor models were evaluated with several goodness-of-fit measures, including chi-square, the comparative fit index (CFI), and the root mean square error of approximation (RMSEA). Because the chi-square statistic is influenced by sample size and generally understates fit when the sample is fairly large, the other two measures (which are less sensitive to sample size) are used to quantify fit; the primary use of chi-square is to evaluate the difference in fit between two models. The CFI (Bentler, 1990), a relative fit measure that compares the hypothesized model with the independence model, ranges from 0 to 1, with values of .95 or higher indicating good fit. The RMSEA has a value of 0 or greater, with values of .05 and below indicating good fit.

The results supported the Vineland–II theoretical structure:

- The loadings of the subdomains on the first-order factors, which correspond to domains, are all moderately high. Therefore, the observed subdomain scores are strong measures of the adaptive skills underlying the factors to which they belong.
- The loadings of the first-order factors on the second-order factor, which corresponds to the Adaptive Behavior Composite, are all very high and similar in magnitude. Therefore, all of the first-order factors are influenced to a substantial degree by the second-order factor. In other words, the relationships among the domains can be explained by a global Adaptive Behavior Composite. At ages 22 through 90, the loading of the Daily Living Skills factor on the global factor is equal to 1.0, indicating that none of the reliable variance of the Daily Living Skills factor is unique to that factor; rather, it is all explained by what it shares in common with the other factors.
- The three- and four-factor models fit the data fairly well. Except at ages 15 to 21, at least one of the two primary fit indexes indicates good fit. The CFI is .96 for ages 3 through 6, and .98 for ages 7 through 14. For ages 15 through 21, the CFI is .94, slightly below the criterion for good fit, and the RMSEA is .09. At ages 22 through 90, there is no statistically significant misfit between the model and the data (p>.05); CFI is fairly low (.83), but the RMSEA is quite good (.04).
- At all ages, the 3- or 4-factor model fits the data significantly better than the one-factor model, as indicated by the change in the value of chi-square.

Evidence Based on Clinical Groups

An important source of validity evidence is provided by the demonstration of a systematic relationship between test scores and external criteria, such as group membership or performance. In fact, demonstrated deficits in adaptive behavior functioning are required for diagnosis of a number of disabilities such as mental retardation and disorders in the autism spectrum. Further, substantive information on the level and pattern of adaptive behavior

deficits in other clinical groups, such as emotional/behavioral disturbance, attention-deficit/hyperactivity disorder, specific learning disabilities, and visual and hearing impairments, can support diagnosis and inform the development of treatment or habilitative programs.

This section provides evidence for the validity of the Vineland–II in supporting the classification or diagnosis of various disorders and in describing patterns of deficits and performance levels in a number of clinical groups. Specifically, the following will demonstrate how information about the individual's adaptive functioning at the composite, domain, or subdomain level supports diagnostic decisions.

Data were gathered from individuals having the following diagnoses:

- Mental retardation
- Autism
- Attention-deficit/hyperactivity disorder
- Emotional/behavioral disturbance
- Learning disability
- Visual and hearing impairments

Individuals were selected for inclusion in a clinical group if the target disorder had been diagnosed and supporting psychometric and/or clinical evidence for that diagnosis was provided. The samples are not representative of the broad expanse of adaptive behaviors that may be exhibited by individuals with a particular diagnosis, but rather they are illustrative of frequently occurring levels and patterns among a group of individuals with a particular diagnosis. Thus, assessment results for a specific individual within any diagnostic category may vary from the mean scores shown in the tables.

The demographic characteristics of these individuals are displayed in **Table 8.10.**

Table 8.10 Clinical Sample, by Sex, Race/Ethnicity, and Mother's Education Level

			Sex				Race/Ethnicity								Mother's Education Level[a]							
			Female		Male		African American		Hispanic		White		Other[b]		11th Grade or Less		High School Graduate or GED		1–3 Years of College		4-Year Degree or Higher	
Clinical Group	*N*	Ages	*N*	%	*N*	%	*N*	%	*N*	%	*N*	%	*N*	%	*N*	%	*N*	%	*N*	%	*N*	%
Autism, nonverbal[c]	31	3–18	6	19.4	25	80.6	2	6.5	4	12.9	25	80.6	0	0.0	3	9.7	9	29.0	9	29.0	10	32.3
Autism, verbal[c]	46	3–18	4	8.7	42	91.3	5	10.9	2	4.3	38	82.6	1	2.2	2	4.4	10	21.7	20	43.5	14	30.4
Emotional/Behavioral Disturbance[d]	34	6–18	6	17.6	28	82.4	5	14.7	4	11.8	24	70.6	1	2.9	1	2.9	8	23.5	19	55.9	6	17.7
Mental Retardation, mild																						
Children[d]	45	19–69	23	51.1	22	48.9	11	24.4	3	6.7	30	66.7	1	2.2	6	13.3	21	46.7	13	28.9	5	11.1
Adults[e]	34	6–18	17	50.0	17	50.0	6	17.7	1	2.9	27	79.4	0	0.0	3	8.8	23	67.7	5	14.7	3	8.8
Mental Retardation, moderate																						
Children[d]	31	6–18	21	67.7	10	32.3	8	25.8	5	16.1	18	58.1	0	0.0	4	12.9	10	32.3	8	25.8	9	29.0
Adults[f]	33	19–50	14	42.4	19	57.6	7	21.2	4	12.1	21	63.6	1	3.1	5	15.2	22	66.6	3	9.1	3	9.1
Mental Retardation, severe to profound																						
Children[d]	36	6–18	13	36.1	23	63.9	6	16.7	7	19.4	22	61.1	1	2.8	8	22.2	9	25.0	13	36.1	6	16.7
Adults[g]	20	26–86	3	15.0	17	85.0	4	20.0	6	30.0	10	50.0	0	0.0	7	35.0	13	65.0	0	0.0	0	0.0
Visual Impairment[d]	36	6–18	19	52.8	17	47.2	2	5.6	2	5.6	30	83.2	2	5.6	7	19.5	8	22.2	12	33.3	9	25.0
Hearing Impairment[d]	58	6–18	30	51.7	28	48.3	5	8.6	8	13.8	43	74.1	2	3.5	3	5.2	12	20.7	21	36.2	22	37.9
Attention-Deficit/ Hyperactivity Disorder[d]	55	6–18	16	29.1	39	70.9	3	5.5	3	5.5	48	87.2	1	1.8	4	7.3	10	18.2	24	43.6	17	30.9
Specific Learning Disabilities[d]	56	6–18	25	44.6	31	55.4	9	16.1	5	8.9	42	75.0	0	0.0	6	10.7	14	25.0	24	42.9	12	21.4

[a] For ages 0 through 25, if mother's or female guardian's education level was not reported, father's or male guardian's education level was used. Participant's education level was used for ages 26 and above.

[b] Includes American Indians, Alaska Natives, Asians, Pacific Islanders, and all other groups not classified as African American, Hispanic, or White

[c] Ages 3–18

[d] Ages 6–18

[e] Ages 19–69

[f] Ages 19–50

[g] Ages 26–86

Tables 8.11 through 8.20 list the mean scores and standard deviations of the Adaptive Behavior Composite, domain standard scores, subdomain *v*-scale scores, and the Maladaptive *v*-scale scores for each clinical group. They also report the differences between the clinical group's mean Adaptive Behavior Composite and domain scores and a nonclinical reference group's mean scores on each measure of adaptive functioning. Because the clinical samples were selected on the basis of a diagnosis and not on demographic characteristics, and because males constitute a large portion of the clinical groups, the comparisons with the nonclinical reference group (the norm sample) are statistically adjusted to control for the effects of sex, ethnicity, and educational level. Mean scores for the clinical groups are actual, unadjusted means.

Mental Retardation

As early as the mid-1800s, it was recognized that deficits in adaptive functioning were important criteria for the diagnosis of mental retardation. The concept of social incompetence as the most important criterion of mental deficiency was formulated in 1935 by Edgar A. Doll, the original author of the family of Vineland assessment instruments, the *Vineland Social Maturity Scale* (VSMS) (1935, 1965), and the president, in 1936, of the American Association on Mental Retardation. Doll also argued that social sufficiency was dependent on the age of the individual and encompassed a wide range of domains. It is now recognized that a diagnosis of mental retardation requires a consideration of intellectual and adaptive behavior functioning (AAMR, 2002, *DSM–IV–TR,* and IDEA, 1999).

For such a diagnosis, the American Association on Mental Retardation requires significant limitations in adaptive behavior and intellectual functioning. A person with mental retardation is assumed to have subaverage intellectual functioning and significant generalized deficits in multiple areas of adaptive behavior. The onset of the disability must occur before 18 years of age. For intellectual functioning, this is defined as an IQ score of 70 or below (approximately two standard deviations below the mean). For adaptive functioning, significant limitations are established by a score that is at least two standard deviations below the mean of the norm population in at least one domain or on the overall composite (AAMR, 2002, p. 76).

For the purpose of distinguishing levels of severity of the individuals with mental retardation, traditional IQ ranges were used:

Mild mental retardation: Approximate IQ range of 50 to 70

Moderate mental retardation: Approximate IQ range of 35 to 49

Severe/profound mental retardation: IQ under 34

Although the use of IQ ranges has been strongly debated, the current AAMR guidelines (2002, p. 23) support this method for classification, and the *International Classification of Diseases,* 10th revision (ICD-10; World Health Organization, 1993), continues to use IQ ranges for classification of the levels of mental retardation.

The Vineland–II Survey Interview Form or Parent/Caregiver Rating Form was administered to the parent or caregiver of 199 individuals with mental retardation. The sample represented three levels of mental retardation based on intellectual functioning: mild, moderate, and severe to profound. Within a level, the sample was divided into two age groups, individuals from 6 through 18 years and individuals 19 years and older. Examiners provided scores from measures of cognitive functioning such as the *Wechsler Intelligence Scale for Children,* Third Edition (Wechsler, 1991) and, if possible, scores from another adaptive behavior assessment such as the Vineland ABS, the *Scales of Independent Behavior–*Revised (Bruininks et al., 1996) or the *Adaptive Behavior Assessment System,* Second Edition (Harrison & Oakland, 2002). Frequently, the examiner provided additional information from an individual education plan (IEP) or from information concerning *DSM–IV–TR* criteria.

Mild Mental Retardation

The mild mental retardation sample consisted of 45 individuals aged 6 through 18 and 34 individuals aged 19 or older, with an equal number of males and females. The demographic characteristics of these individuals are displayed in Table 8.10. The older age group contained proportionately more Caucasians. The lower socioeconomic status in the adult sample was expected because it was based on the education level of the individual who was assessed, not on the mother's education level, which is used in the lower age group.

Table 8.11 presents the means and standard deviations of Vineland–II scores in the two age groups. Adjusting for sex, ethnicity, and socioeconomic status, the average differences from the nonclinical reference group exceed two standard deviations for all domains and the Adaptive Behavior Composite; in the older sample, these differences are about three standard deviations for the Daily Living Skills and Socialization Domains and Adaptive Behavior Composite, and four standard deviations for the Communication Domain.

Figure 8.5 provides a graphical representation of mean scores for individuals with mental retardation aged 6 through 18, and **Figure 8.6** displays the mean scores of the adult sample with mental retardation. Three lines are shown in each figure corresponding to the three levels of severity in the study samples; mild, moderate, and severe to profound.

Table 8.11 Mild Mental Retardation Sample: Means and Standard Deviations of Domains, Subdomains, and Adaptive Behavior Composite with Comparison to Norm Sample, by Age

	Mean	*SD*	Difference from nonclinical reference group[a]	Percentage scoring at or below 70
Ages 6–18 (*N* = 45)				
Communication	68.5	10.0	−32.9**	62.2
Receptive	10.2	2.6	−4.6**	
Expressive	9.2	2.6	−6.1**	
Written	8.7	1.8	−6.3**	
Daily Living Skills	66.6	11.9	−35.1**	64.4
Personal	9.4	2.8	−5.8**	
Domestic	9.6	3.1	−5.8**	
Community	8.0	2.1	−7.2**	
Socialization	68.5	10.9	−32.7**	55.6
Interpersonal Relationships	9.6	2.6	−5.4**	
Play and Leisure Time	8.1	2.4	−6.9**	
Coping Skills	10.1	2.4	−5.2**	
Motor Skills[b]	—	—	—	—
Gross[b]	—	—	—	
Fine[b]	—	—	—	
Adaptive Behavior Composite	66.3	10.0	−34.9**	71.1
Ages 19–69 (*N* = 34)				
Communication	41.4	19.9	−57.3**	94.1
Receptive	8.6	3.6	−6.2**	
Expressive	9.4	1.7	−5.8**	
Written	7.1	2.0	−7.6**	
Daily Living Skills	56.8	9.3	−42.4**	97.1
Personal	8.3	1.4	−6.5**	
Domestic	9.3	1.9	−5.6**	
Community	6.8	2.1	−8.1**	
Socialization	56.4	13.7	−42.6**	85.3
Interpersonal Relationships	8.6	2.0	−6.4**	
Play and Leisure Time	8.9	1.7	−6.3**	
Coping Skills	10.1	1.9	−4.7**	
Motor Skills[c]	—	—	—	—
Gross[c]	—	—	—	
Fine[c]	—	—	—	
Adaptive Behavior Composite	49.9	12.1	−48.9**	97.1

[a] Controlling for sex, race/ethnicity, and education level, and matched by age range with clinical group

[b] Age 6 only. $N = 2$

[c] Ages 50–90. $N = 4$

**$p<.01$

Figure 8.5 Profiles of mean subdomain *v*-scale scores and domain and Adaptive Behavior Composite standard scores for Mild, Moderate, and Severe MR groups, ages 6–18

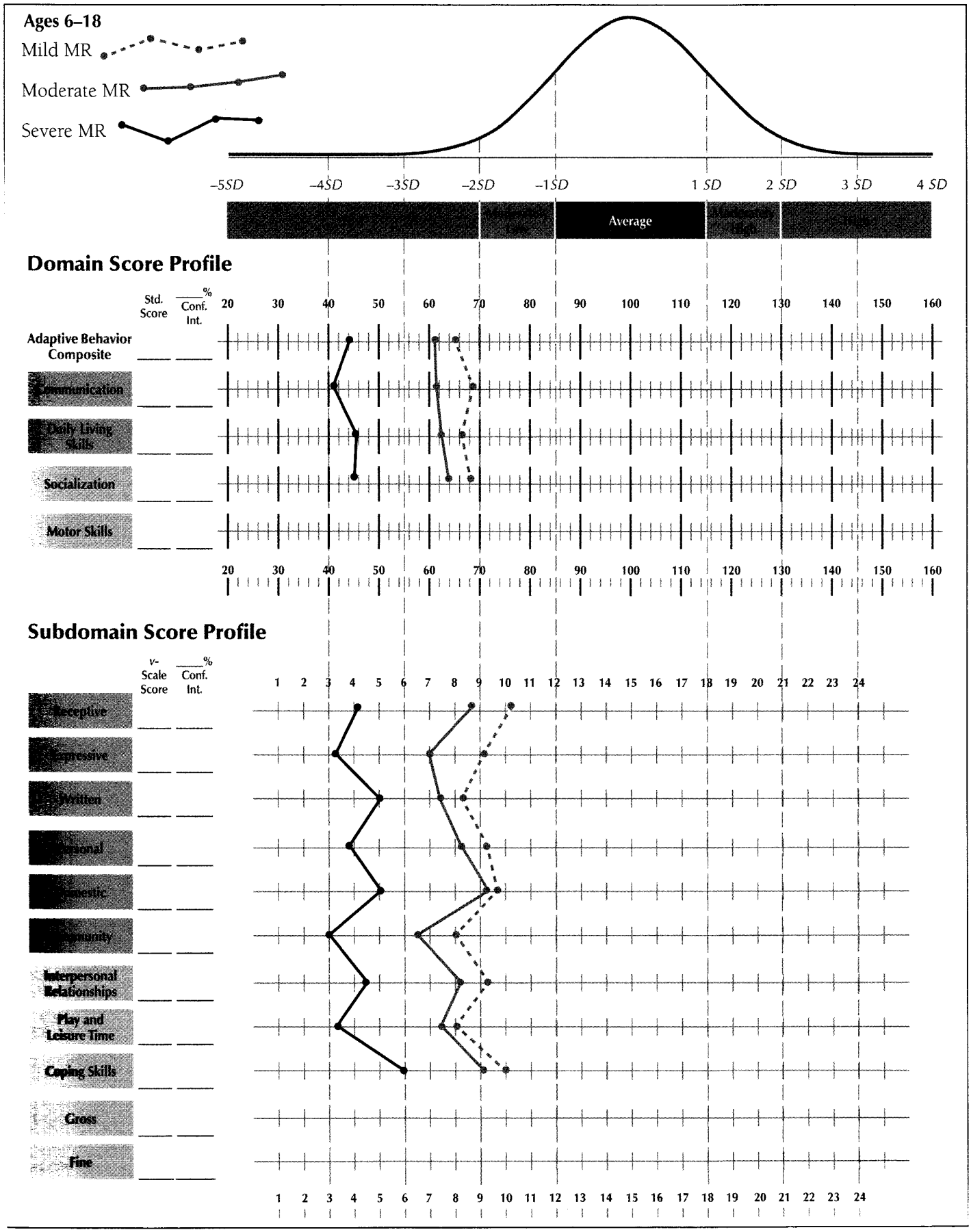
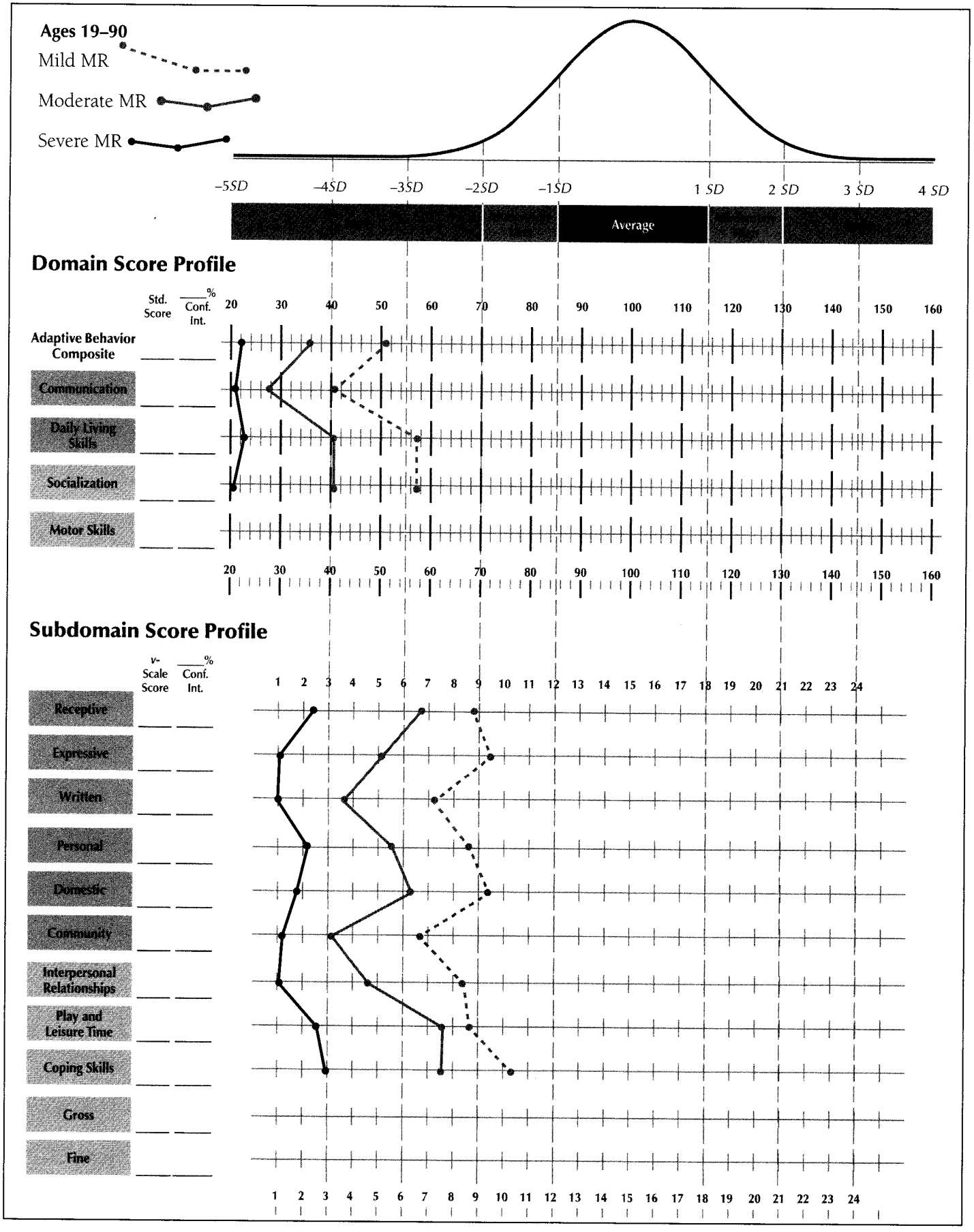


Figure 8.6 Profiles of mean subdomain *v*-scale scores and domain and Adaptive Behavior Composite standard scores for Mild, Moderate, and Severe MR groups, ages 19–90



Findings for ages 6 through 18:

- The mean score for the clinical group on the Adaptive Behavior Composite is 66.3, more than two standard deviations below the mean in the nonclinical reference group.
- The pattern of mean domain scores reflects the theoretical expectation that those with mental retardation would show a generalized or flat pattern of deficits. "[M]ental retardation is characterized by deficits in adaptive behavior that are generalized across the domains" (AAMR, 2002, p. 76).
- For diagnosis of mental retardation, the level of adaptive functioning of an individual should be two standard deviations or more below the mean on at least one domain or the composite score when compared to functioning of a normative sample (AAMR, 2002; *DSM–IV–TR,* 2000). The results for this sample, with mean domain scores ranging from 66.6 to 68.5, demonstrate the consistency of Vineland–II Survey forms data with this criterion. All clinical sample domain mean scores are at least two standard deviations below the corresponding mean scores in the nonclinical reference group as required. This also satisfies the requirements set by IDEA (1999).
- The pattern of subdomain mean scores describes this group as having poor skills in the Written Subdomain—a subdomain primarily concerned with school-related behaviors. In the Daily Living Skills Domain, the lowest mean score occurs in community functioning, where the individuals have deficits in handling money, managing time, and moving throughout the community. Within Socialization, this group shows the greatest deficits in behaviors used in play and leisure activities.
- The last column in Table 8.11 displays the percentage of individuals in the clinical sample having mean domain scores at or below 70. On the Adaptive Behavior Composite alone, 71 percent of the sample scored at least two standard deviations below the mean; the percentage of individuals meeting this criterion on each of the other domains ranged from 56 to 64 percent.

Findings for ages 19 through 90:

- The adult portion of the mild retardation sample shows a lower level of adaptive behavior functioning than the younger group. The Adaptive Behavior Composite mean score of 49.9 is more than three standard deviations below the mean score of the nonclinical reference group.
- The mean scores on the Daily Living Skills and Socialization Domains are similar and approximately three standard deviations below the means in the nonclinical reference group. The Communication Domain score is substantially lower, over four standard deviations below the nonclinical group mean. This pattern is displayed in Figure 8.6. The very low Communication Domain mean scores and the low mean score in the Interpersonal Relationships and Community Subdomains could reflect the increased isolation of members in this group who are no longer in an educational setting.
- The adaptive behavior deficits in the adult sample with mild mental retardation are pervasive, with 97.1 percent of the sample showing an Adaptive Behavior Composite at least two standard deviations below the mean.

In summary, evidence supporting the use of the Vineland–II Survey forms as measures of adaptive behavior functioning in mild mental retardation is seen in both the level and the pattern of scores. There are significant deficits in the overall level of adaptive behavior functioning as measured by the Adaptive Behavior Composite and the domain mean scores. All of these deficits are more than two standard deviations below that observed in the nonclinical reference group. Comparing Figures 8.5 and 8.6, it is evident that the younger individuals with mild mental retardation show a flat pattern of deficits, reflecting the generalized distribution of deficits in adaptive behavior functioning. The adult sample, although having lower scores overall, shows particularly large deficits in communication skills, community functioning, and interpersonal relationships.

Moderate Mental Retardation

The moderate mental retardation sample consisted of 31 individuals aged 6 through 18, and 33 aged 19 or older. The demographic characteristics of these individuals are displayed in Table 8.10. The school-age group had twice as many females as males, whereas the adult sample included more males than females. The ethnic composition of the two samples was similar. As was seen in the individuals with mild mental retardation, there was a lower socioeconomic status in the adult sample. Again, this was expected because the adult sample reported the education level they had attained, whereas socioeconomic status in the school-age group was based on the mother's education level.

Table 8.12 presents the means and standard deviations of Vineland–II scores in these moderate mental retardation samples, and the differences between these samples and the nonclinical reference group (adjusted for sex, ethnicity, and education). Figures 8.5 and 8.6 provide graphical representations of the score profile.

Table 8.12 Moderate Mental Retardation Sample: Means and Standard Deviations of Domains, Subdomains, and Adaptive Behavior Composite with Comparison to Norm Sample, by Age

	Mean	*SD*	Difference from non-clinical reference group[a]	Percent scoring at or below 70
Ages 6–17 (*N* = 31)				
Communication	60.9	9.4	−41.2**	93.6
Receptive	8.8	2.4	−6.2**	
Expressive	7.1	2.5	−8.3**	
Written	7.5	1.5	−7.6**	
Daily Living Skills	61.9	13.7	−39.8**	83.9
Personal	8.2	3.1	−7.0**	
Domestic	9.3	3.5	−6.1**	
Community	6.6	2.1	−8.6**	
Socialization	64.3	12.1	−37.1**	74.2
Interpersonal Relationships	8.3	2.7	−6.8**	
Play and Leisure Time	7.5	2.9	−7.5**	
Coping Skills	9.4	2.4	−6.0**	
Motor Skills[b]	—	—	—	—
Gross[b]	—	—	—	
Fine[b]	—	—	—	
Adaptive Behavior Composite	61.1	11.1	−40.3**	87.1
Ages 19–50 (*N* = 33)				
Communication	27.7	11.0	−70.7**	100.0
Receptive	6.8	4.2	−8.1**	
Expressive	5.2	3.5	−10.0**	
Written	3.7	2.6	−10.9**	
Daily Living Skills	40.1	14.2	−58.6**	97.0
Personal	5.4	2.7	−9.3**	
Domestic	6.5	3.0	−8.5**	
Community	3.2	2.4	−11.7**	
Socialization	40.7	15.1	−57.9**	97.0
Interpersonal Relationships	4.8	2.9	−10.1**	
Play and Leisure Time	7.8	1.8	−7.4**	
Coping Skills	7.7	2.6	−7.1**	
Motor Skills[c]	—	—	—	—
Gross[c]	—	—	—	
Fine[c]	—	—	—	
Adaptive Behavior Composite	33.6	13.4	-64.7**	100.0

[a] Controlling for sex, race/ethnicity, and education level, and matched by age range with clinical group

[b] Age 6 only $N = 1$

[c] Ages 50–90 $N = 1$

**p<.01

Findings for ages 6 through 18 years:

- The level of adaptive behavior functioning for school-age individuals with moderate mental retardation is consistently lower than for those with mild mental retardation. The mean Adaptive Behavior Composite score for the sample is 61.1, or more than two and one-half standard deviations below the population mean. Fully 87 percent of the school-age sample with moderate mental retardation has Adaptive Behavior Composite scores lower than two standard deviations below the mean.
- The mean domain scores are four to eight scale points lower than those observed in the group with mild mental retardation. Greater percentages of individuals with moderate mental retardation are identified by a domain score that is at least two standard deviations below the mean, ranging from 74 percent in the Socialization Domain to 94 in the Communication Domain.
- When comparing individuals with mild and moderate mental retardation, the pattern of scores on the domains and subdomains is remarkably similar. For both groups, the mean domain scores reflect theoretical expectations, displaying a flat pattern of deficits. The pattern of mean subdomain scores documents relatively fewer adaptive behaviors in the Written, Community, and Play and Leisure Time Subdomains. The group with moderate mental retardation shows, in addition, fewer adaptive behaviors in the Expressive Subdomain.

Findings for ages 19 through 90 years:

- The mean Adaptive Behavior Composite score for the adult sample is 33.6, more than four standard deviations lower than for the nonclinical reference group and 16 points lower than among the adults with mild mental retardation. The entire adult sample would qualify for a diagnosis of mental retardation based on the Adaptive Behavior Composite score alone, because all scored lower more than two standard deviations below the mean.
- The mean domain scores for adults with moderate mental retardation are three and one-half to four standard deviations lower than in the nonclinical reference group, and 13 to 17 points lower than among adults with mild mental retardation. Almost all individuals with moderate mental retardation have domain scores that are more than two standard deviations below the mean: the percentages range from 97 percent for Daily Living Skills and Socialization, to 100 percent for the Communication Domain.

- The pattern of mean domain and subdomain scores resembles that seen in adults with mild mental retardation. The mean scores in the Daily Living Skills and Socialization Domains are about equal, whereas the mean Communication Domain score is much lower, more than four standard deviations below the nonclinical-group mean. As in the group with mild mental retardation, the lowest subdomain scores occur in the Written, Community, and Interpersonal Relationships Subdomains. These scores are not unexpected, because these individuals are no longer in an educational setting.

In summary, evidence supporting the use of the Vineland–II as a measure of adaptive behavior functioning in moderate mental retardation is similar to that found for mild mental retardation. There are significant deficits in the overall level of adaptive functioning as measured by the Adaptive Behavior Composite and the domain mean scores. All of these deficits are more than two standard deviations below the mean score of the nonclinical reference group. Comparing Figures 8.5 and 8.6, it is evident that the younger individuals with moderate mental retardation show a flat pattern of deficits reflecting the generalized distribution of deficits in adaptive behavior functioning. The adult sample shows relatively greater deficits in communication skills, community functioning, and interpersonal relationships.

Severe to Profound Mental Retardation

In the 2002 publication of *Mental Retardation,* the American Association on Mental Retardation combined the severe and profound mental retardation categories. The Vineland–II clinical sample was defined in a similar manner and consisted of 36 individuals from age 6 through 18 years old, and 20 who were 26 years old or older. The demographic characteristics of these individuals are displayed in Table 8.10. The samples are predominantly male and contain a greater proportion of Hispanics than the other clinical groups.

Table 8.13 presents the mean Vineland–II scores and standard deviations for the two age groups. The comparisons with the norm sample are statistically adjusted for differences in sex, ethnicity, and educational level. Figures 8.5 and 8.6 provide graphical representations of the score profile.

Table 8.13 Severe to Profound Mental Retardation Sample: Means and Standard Deviations of Domains, Subdomains, and Adaptive Behavior Composite with Comparison to Norm Sample, by Age

	Mean	*SD*	Difference from non-clinical reference group[a]	Percent scoring at or below 70
Ages 6–18 (*N* = 36)				
Communication	41.4	9.0	−59.4**	100.0
Receptive	4.2	2.5	−10.6**	
Expressive	3.6	1.9	−11.6**	
Written	5.0	0.9	−9.9**	
Daily Living Skills	41.5	10.4	−59.3**	100.0
Personal	3.7	2.2	−11.4**	
Domestic	5.0	2.2	−10.1**	
Community	3.1	1.3	−12.0**	
Socialization	45.0	7.3	−55.7**	100.0
Interpersonal Relationships	4.6	2.1	−10.3**	
Play and Leisure Time	3.3	1.7	−11.6**	
Coping Skills	6.1	1.2	−9.2**	
Motor Skills[b]	—	—	—	—
Gross[b]	—	—	—	
Fine[b]	—	—	—	
Adaptive Behavior Composite	41.5	10.1	−58.9**	100.0
Ages 26–86 (*N* = 20)				
Communication	21.2	0.4	−75.7**	100.0
Receptive	2.3	2.1	−12.4**	
Expressive	1.1	0.2	−14.1**	
Written	1.0	0.0	−13.2**	
Daily Living Skills	23.4	6.5	−73.4**	100.0
Personal	2.2	2.0	−12.2**	
Domestic	1.8	1.9	−12.8**	
Community	1.3	1.3	−13.4**	
Socialization	20.0	0.0	−77.4**	100.0
Interpersonal Relationships	1.1	0.2	−13.7**	
Play and Leisure Time	2.6	1.0	−12.4**	
Coping Skills	2.8	1.8	−11.8**	
Motor Skills[c]	—	—	—	—
Gross[c]	—	—	—	
Fine[c]	—	—	—	
Adaptive Behavior Composite	20.4	1.6	−76.0**	100.0

[a] Controlling for sex, race/ethnicity, and education level, and matched by age range with clinical group

[b] Age 6 only $N = 3$

[c] Ages 50-90 $N = 3$

**p<.01

The mean Adaptive Behavior Composite score for the school-age sample with severe/profound mental retardation is 41.5, almost four standard deviations below the mean of the nonclinical reference group. The performance of this group is more than one standard deviation below that observed in school-age individuals with moderate mental retardation. Like the school-age groups with mild and moderate mental retardation, the profile of domain scores (Figure 8.5) is flat, with mean domain scores ranging from 41 to 45. The minimum attainable domain or Adaptive Behavior Composite standard score is 20, and many individuals obtain this minimum. The pattern of deficits at the subdomain level is similar to that found in the school-age groups with mild or moderate mental retardation. The greatest deficits occur in the Expressive, Community, and Play and Leisure Time Subdomains. All individuals scored at least two standard deviations below the mean on each domain and the Adaptive Behavior Composite.

The mean Adaptive Behavior Composite score for the older sample is 20.4, or more than five standard deviations below the mean of the nonclinical reference group. The performance of this group is about one standard deviation below the adult group with moderate mental retardation. The domain score profile for this group is flat, with mean scores ranging from 20 to 23; most of the adults obtained the minimum score of 20. As in the school-age group, all adults have a score at least two standard deviations below the mean on each domain and the Adaptive Behavior Composite.

Scores on the Maladaptive Scales for MR

All clinical groups with mental retardation were also assessed on the Vineland–II Maladaptive Scales; Internalizing, Externalizing, and the Maladaptive Behavior Index. Mean *v*-scale scores are summarized in **Table 8.14**.

Even though the school-age groups tended to exhibit more maladaptive behaviors than the nonclinical reference group, the differences are modest, less than one standard deviation. (Recall that in the general population the *v*-scale has a mean of 15 and standard deviation of 3.) All mean *v*-scale scores fall within the average range. The adult sample with mental retardation exhibits a greater number of maladaptive behaviors compared to both the nonclinical reference group and the school-age mental retardation group, and the differences are greatest for the adult group with severe to profound retardation. Only the Internalizing scale mean, however, falls within the elevated range.

Table 8.14 Means and Standard Deviations of Maladaptive Scales and the Maladaptive Behavior Index for Clinical Samples with Comparison to Norm Sample, by Age

	Mean	*SD*	Difference from non-clinical reference group[a]
Mild Mental Retardation, Ages 6–18 (*N* = 45)			
Internalizing	16.4	2.8	1.2**
Externalizing	15.7	3.4	0.7
Maladaptive Behavior Index	16.5	3.2	1.3**
Mild Mental Retardation, Ages 19–90 (*N* = 34)			
Internalizing	17.1	3.2	1.7**
Externalizing	18.4	3.2	2.8**
Maladaptive Behavior Index	18.2	3.0	3.0**
Moderate Mental Retardation, Ages 6–18 (*N* = 31)			
Internalizing	17.2	2.9	2.1**
Externalizing	16.3	2.5	1.4**
Maladaptive Behavior Index	17.5	2.5	2.5**
Moderate Mental Retardation, Ages 19–90 (*N* = 33)			
Internalizing	16.6	2.6	1.2**
Externalizing	18.7	2.8	3.0**
Maladaptive Behavior Index	17.7	3.0	2.6**
Severe to Profound Mental Retardation, Ages 6–18 (*N* = 36)			
Internalizing	16.3	3.0	1.2**
Externalizing	14.1	2.6	−0.9*
Maladaptive Behavior Index	16.1	2.7	1.0*
Severe to Profound Mental Retardation, Ages 19–20 (*N* = 20)			
Internalizing	19.1	1.5	3.9**
Externalizing	18.4	2.7	2.6**
Maladaptive Behavior Index	18.7	1.7	3.6**
Autism, Verbal, Ages 3–18 (*N* = 46)			
Internalizing	18.7	2.1	3.7**
Externalizing	16.5	2.1	1.4**
Maladaptive Behavior Index	18.1	2.0	3.0**
Autism, Nonverbal, Ages 3–18 (*N* = 31)			
Internalizing	20.6	1.6	5.6**
Externalizing	16.7	2.0	1.7**
Maladaptive Behavior Index	19.6	1.3	4.5**
Attention-Deficit/Hyperactivity Disorder (*N* = 55)			
Internalizing	16.8	3.0	1.8**
Externalizing	17.6	2.6	2.6**
Maladaptive Behavior Index	18.1	2.3	2.9**
Emotional/Behavioral Disturbance (*N* = 34)			
Internalizing	19.1	2.1	4.0**
Externalizing	19.2	2.6	4.1**
Maladaptive Behavior Index	19.5	2.6	4.3**
Learning Disability (*N* = 56)			
Internalizing	16.4	3.3	1.3**
Externalizing	16.4	3.2	1.4**
Maladaptive Behavior Index	16.7	3.3	1.6**
Visual Impairment (*N* = 36)			
Internalizing	16.1	2.7	1.1**
Externalizing	14.9	1.9	0.0
Maladaptive Behavior Index	15.5	2.3	0.5
Hearing Impairment (*N* = 58)			
Internalizing	14.9	2.5	−0.1
Externalizing	15.0	2.3	0.2
Maladaptive Behavior Index	15.2	2.3	0.2

[a] Controlling for sex, race/ethnicity, and education level, and matched by age range with clinical group

*$p<.05$ **$p<.01$

Summary of Findings on Groups with Mental Retardation

In summary, clinical evidence supports the use of the Vineland–II as a measure of adaptive functioning for the diagnosis of mental retardation.

- For every level of mental retardation and age of the clinical sample, there are significant deficits in overall level of adaptive functioning as measured by the mean Adaptive Behavior Composite and the domain scores. All of these deficits are more than two standard deviations below that observed in the nonclinical reference group.
- For every level of mental retardation, the school-age samples show a flat pattern of deficits reflecting the generalized distribution of deficits in adaptive functioning as required by AAMR (2002).
- For every level of mental retardation, the adult clinical sample has greater deficits than the school-age sample on the overall composite, the domains, and the subdomains.
- For the adult sample with mild or moderate mental retardation, there is a consistent pattern of relative deficits in communication skills, community functioning, and interpersonal relationships, reflecting social isolation after leaving the school setting. The severity of the deficits in the adult sample with severe/profound mental retardation precludes any differentiation among subdomain functioning.

Autism

Individuals with autism are characterized by developmental delays or deficits in social interactions and communication, as well as perseverative and ritualistic behaviors (*DSM–IV–TR,* 2000; World Health Organization, 1993). As with all developmental disabilities, these deficits are best evaluated within the context of salient tasks appropriate to the individual's age or stage of development (Gillham, et al., 2000). The *DSM–IV–TR* (2000) established criteria for the diagnosis of Autistic Disorder, including:

- Impairment in social interaction, such as impaired use of nonverbal behaviors, failure to develop peer relationships, or lack of social reciprocity
- Impairment in communication, such as lack of spoken language development, difficulty initiating or sustaining conversations, or lack of imitative play
- Restricted, repetitive, or stereotypical patterns of behavior or interests
- Delays or abnormal functioning with onset prior to three years in at least one of these areas: social interaction, language as used in social communication, or symbolic or imaginative play
- The disturbance is not better accounted for by a diagnosis of Rett's Disorder or Childhood Disintegrative Disorder

To be included in the study, each individual had to meet the above criteria. Supporting evidence of the autism diagnosis was required from an assessment instrument like the *Autism Diagnostic Interview–Revised* (Rutter, LeCouteur, & Lord, 1994), *Autism Diagnostic Observation Schedule* (Lord, et al., 1989), or *Gilliam Autism Rating Scale* (Gilliam, 1995), as well as data on intellectual functioning. Frequently, the examiner provided additional information from an individual education plan (IEP) or information concerning *DSM–IV–TR* criteria. A total of 77 individuals were included in the study, divided into two groups. The autism-nonverbal group consisted of 31 individuals aged 2 through 10 who used fewer than five words purposefully and meaningfully each day. The autism-verbal group was composed of 46 individuals aged 3 through 19 and who used more than five words purposefully and meaningfully each day.

The demographic characteristics of these individuals are displayed in Table 8.10. As is typically found for individuals with autism, the sample was predominantly male and mostly Caucasian. Over 68 percent of the mothers had at least some college education.

Table 8.15 presents the means and standard deviations of Vineland–II scores for the two groups of individuals with autism, and **Figure 8.7** provides a graphical representation of these findings.

Table 8.15 Autism Verbal and Nonverbal Sample: Means and Standard Deviations of Domains, Subdomains, and Adaptive Behavior Composite with Comparison to Norm Sample, Ages 3–16

	Mean	*SD*	Difference from non-clinical reference group[a]
Verbal (*N* = 46)			
Communication	68.4	14.1	−33.2**
Receptive	10.2	3.0	−4.7**
Expressive	8.0	3.2	−7.7**
Written	10.0	3.4	−5.0**
Daily Living Skills	67.8	14.8	−33.5**
Personal	8.9	3.3	−6.2**
Domestic	10.2	3.0	−5.0**
Community	8.8	3.5	−6.7**
Socialization	64.4	14.8	−37.4**
Interpersonal Relationships	7.7	3.1	−7.5**
Play and Leisure Time	7.7	3.6	−7.6**
Coping Skills	9.7	2.8	−5.6**
Motor Skills[b]	81.2	11.1	−20.9**
Gross[b]	12.6	2.0	−2.7**
Fine[b]	11.3	2.1	−3.8**
Adaptive Behavior Composite	65.7	13.3	−35.7**
Nonverbal (*N* = 31)			
Communication	47.0	9.0	−54.0**
Receptive	5.2	2.6	−9.7**
Expressive	4.7	1.8	−10.8**
Written	7.5	2.6	−7.5**
Daily Living Skills	52.5	10.1	−48.3**
Personal	6.6	2.3	−8.4**
Domestic	7.6	2.7	−7.5**
Community	5.5	2.4	−9.8**
Socialization	51.0	8.7	−50.4**
Interpersonal Relationships	5.3	1.9	−9.8**
Play and Leisure Time	5.2	2.2	−10.0**
Coping Skills	7.5	1.5	−7.8**
Motor Skills[c]	67.4	10.0	−34.1**
Gross[c]	10.3	2.1	−4.8**
Fine[c]	8.8	1.8	−6.3**
Adaptive Behavior Composite	50.7	9.2	−50.3**

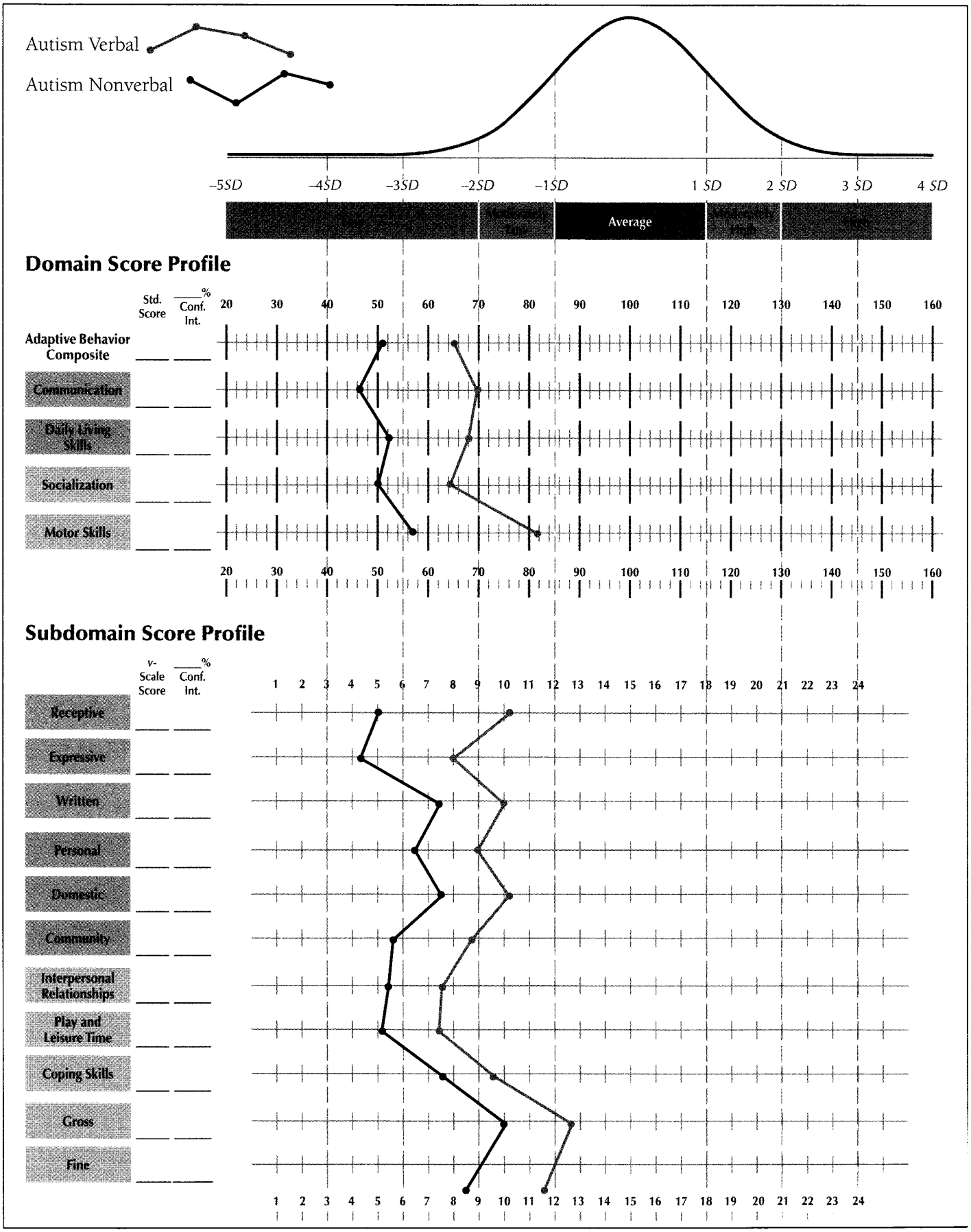
[a] Controlling for sex, race/ethnicity, and education level, and matched by age range with clinical group

[b] Ages 3–6 only $N = 16$

[c] Ages 3–6 only $N = 14$

**$p<.01$

Figure 8.7 Profiles of mean subdomain *v*-scale scores and domain and Adaptive Behavior Composite standard scores for Verbal and Nonverbal Autism groups



Autism-Verbal Group Findings

- The mean Adaptive Behavior Composite score is 65.7, more than two standard deviations below the mean of the nonclinical reference group. All mean domain and subdomain scores are significantly different from those observed in the nonclinical reference group.
- The lowest domain score is in Socialization.
- The largest deficits in adaptive functioning occur in the Interpersonal Relationships, Play and Leisure Time, and Expressive Subdomains. The mean subdomain *v*-scale scores of 7.7 and 8.0 in these areas are more than two standard deviations lower than the corresponding means in the nonclinical reference group. This supports the *DSM–IV–TR* diagnostic criteria for autism, namely documented deficits in the areas of socialization and expressive communication.

Autism-Nonverbal Group Findings

- The mean Adaptive Behavior Composite score is 51, more than three standard deviations below the mean score in the nonclinical reference group. As is true in the autism-verbal group, all mean domain and subdomain scores are significantly different from those observed in the nonclinical reference group.
- The largest deficits in adaptive functioning occur in the Interpersonal Relationships, Play and Leisure Time, and Expressive Subdomains. The mean subdomain *v*-scale scores of 4.7 to 5.3 in these areas are more than three standard deviations lower than the corresponding means in the nonclinical reference group, and two to three points lower than in the group with verbal autism. These data support the *DSM–IV–TR* criteria for a diagnosis of autism.
- When comparing individuals with verbal and nonverbal autism, the pattern of scores in the domains and subdomains is remarkably similar (Figure 8.7). For both groups, the mean domain scores reflect the diagnostic criteria of *DSM–IV–TR* and display marked deficits in the Expressive, Interpersonal Relationships, and Play and Leisure Time Subdomains.

Table 8.14 presents the mean *v*-scale scores on the Maladaptive subscales. Among both groups with autism, the mean score on the Internalizing subscale and the Maladaptive Behavior Index is significantly higher than the nonclinical sample. The individuals with nonverbal autism exhibit more maladaptive behaviors on average than do those with verbal autism, and their scores on the Internalizing subscale are considered *elevated*. Elevated scores on the Internalizing scale are not unexpected, because many of the internalizing behaviors address specific deficits usually associated with autism (e.g., avoids others and prefers to be alone). The scores on the Externalizing subscale for both groups with autism are considered in the average range. Again, this pattern would be expected for individuals with autism because these behaviors typically involve much more social interaction (e.g., taunting or teasing).

Attention-Deficit/Hyperactivity Disorder (ADHD)

Although adaptive behavior deficits are not formally considered in the diagnosis of attention-deficit/hyperactivity disorder (ADHD), they can provide additional information concerning the presence of the underlying disorder and can be useful in planning treatment or habilitative programs. Since individuals with ADHD exhibit a persistent pattern of inattention and/or hyperactivity-impulsivity, the disorder can interfere with developmentally appropriate social and academic functioning.

To be included in the study, the examiner verified that the individual met *DSM–IV–TR* criteria for ADHD. The examiner also supplied results from one or more of the following:

- IQ test or achievement assessment
- IEP (Individual Education Plan)
- 504 plan
- Doctor's letter indicating a need for services

Accepted into the study were 55 individuals aged 6 through 18. The demographic characteristics of these individuals are displayed in Table 8.10. As is typically found, the sample was predominantly male, and mostly Caucasian. Over 70 percent of the mothers had at least some college education.

Table 8.16 presents the means and standard deviations of Vineland–II scores for this group. **Figure 8.8** provides a graphical representation of this information.

Table 8.16 Attention-Deficit/Hyperactivity Disorder Sample: Means and Standard Deviations of Domains, Subdomains, and Adaptive Behavior Composite with Comparison to Norm Sample, Ages 6–18

	Mean	*SD*	Difference from non-clinical reference group[a]
Communication	92.4	13.9	−10.1**
Receptive	12.9	2.5	−2.0**
Expressive	14.1	2.5	−1.5**
Written	13.7	2.6	−1.5**
Daily Living Skills	99.5	13.8	−2.4
Personal	15.6	2.5	0.4
Domestic	14.8	2.8	−0.5
Community	14.6	2.5	−0.9*
Socialization	94.2	15.1	−7.9**
Interpersonal Relationships	13.8	2.8	−1.3**
Play and Leisure Time	13.9	3.4	−1.3**
Coping Skills	14.2	2.9	−1.2**
Motor Skills[b]	—	—	—
Gross[b]	—	—	—
Fine[b]	—	—	—
Adaptive Behavior Composite	94.1	13.8	−7.8**

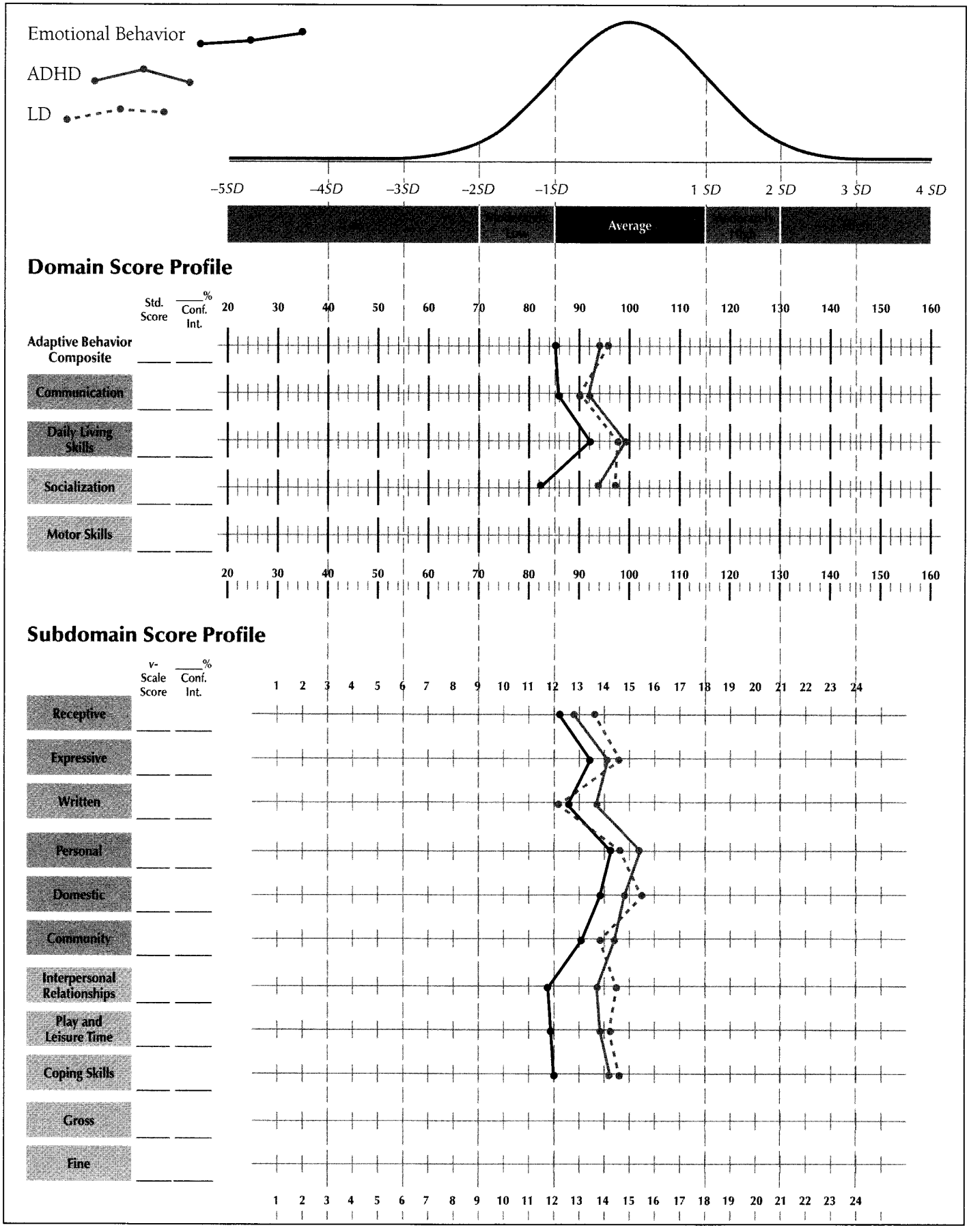
$N = 55$

[a] Controlling for sex, race/ethnicity, and education level, and matched by age range with clinical group

[b] Age 6 only. $N = 5$

*$p<.05$ **$p<.01$

Figure 8.8 Profiles of mean subdomain *v*-scale scores and domain and Adaptive Behavior Composite standard scores for EBD, ADHD, and LD groups



The mean Adaptive Behavior Composite score indicates that the overall level of adaptive functioning is somewhat lower than that of the nonclinical reference group. The group with ADHD performed as well as the nonclinical group on Daily Living Skills but showed deficits in the Communication and Socialization Domains. As would be expected, these individuals had difficulty maintaining focus and attention needed for effective Receptive Communication (e.g., listening patiently). They also showed deficits in Expressive Communication (e.g., staying on topic in conversations) and Written Communication.

All three subdomains in the Socialization Domain also showed deficits. Individuals with ADHD had difficulty with Interpersonal Relationships (e.g., choosing not to say embarrassing things), Play and Leisure (e.g., taking turns), and Coping Skills (e.g., talking with others without interrupting).

When compared to the nonclinical reference group, the group with ADHD had higher mean scores on the Maladaptive Behavior Index and the Internalizing and Externalizing subscales (see Table 8.14). Only the Maladaptive Behavior Index score was considered elevated, however. The other two mean scale scores were in the average range. In summary, the Vineland–II proved helpful in identifying patterns of adaptive behavior deficits that would support the diagnosis of ADHD and could form the basis for treatment or habilitative plans.

Emotional/Behavioral Disturbance (EBD)

Deficits in adaptive functioning may coexist with emotional or behavioral problems (Sparrow and Cicchetti, 1987), and a better understanding of these deficits could help in the development of intervention or treatment plans. To investigate the level of adaptive functioning in individuals with a diagnosis of Emotional/Behavioral Disturbance (EBD), 34 individuals aged 8 through 14 were administered the Vineland–II Survey Interview or the Parent/Caregiver Rating Form. Each had demonstrated an inability to learn that could not be explained by intellectual, sensory, or health factors; an inability to build or maintain satisfactory interpersonal relationships; or an inability to show appropriate behavior or feelings. The examiner provided results from a measure of intellectual functioning and a behavior assessment instrument, such as the BASC or the CBCL, used to establish the diagnosis.

The demographic characteristics of these individuals are displayed in Table 8.10. There the sample was predominantly male, with more than 70 percent Caucasian. **Table 8.17** presents the means and standard deviations of Vineland–II scores for this group, and Figure 8.9 provides a graphical representation of the results.

Table 8.17 Emotional/Behavioral Disturbance Sample: Means and Standard Deviations of Domains, Subdomains, and Adaptive Behavior Composite with Comparison to Norm Sample, Ages 8–17

	Mean	*SD*	Difference from non-clinical reference group[a]
Communication	87.2	12.3	– 14.5**
Receptive	12.1	2.7	– 2.7**
Expressive	13.4	2.6	– 2.0**
Written	12.8	2.9	– 2.2**
Daily Living Skills	92.2	14.1	– 9.0**
Personal	14.3	2.7	– 0.8
Domestic	13.7	3.3	– 1.4**
Community	13.1	2.8	– 2.2**
Socialization	82.4	13.1	– 19.0**
Interpersonal Relationships	11.7	2.5	– 3.4**
Play and Leisure Time	11.9	3.8	– 3.2**
Coping Skills	12.0	2.6	– 3.3**
Motor Skills[b]	—	—	—
Gross[b]	—	—	—
Fine[b]	—	—	—
Adaptive Behavior Composite	85.7	11.7	– 15.4**

N = 34

[a] Controlling for sex, race/ethnicity, and education level, and matched by age range with clinical group

[b] Age 6 only. *N* = 0

**$p<.01$

The overall level of adaptive functioning as measured by the mean Adaptive Behavior Composite score is 85.7, one standard deviation lower than that of the nonclinical reference group and nine points lower than the group with ADHD. As in the ADHD group, the greatest deficits occurs in communication and socialization. However, the EBD group also has significantly lower scores in Daily Living Skills when compared to the nonclinical reference sample. In general, the mean scores of the EBD group across the domains are eight to twelve points lower than those shown by the ADHD group.

The level of adaptive functioning in all subdomains is consistently lower for the EBD group when compared to the ADHD and nonclinical reference groups. The pattern of subdomain scores, however, is similar in the ADHD and EBD groups. Both showed the greatest deficits in the Socialization subdomains and in the Receptive and Written Subdomains.

The EBD group also shows more maladaptive behaviors than any other clinical group, with the exception of the autism-nonverbal group. The mean Maladaptive Behavior Index score (19.5) and the Internalizing (19.1) and Externalizing (19.2) scale scores are considered elevated, with all mean scores being four or more points higher than those observed in the nonclinical reference group.

Use of the Vineland–II can support the diagnosis of EBD, can help clinicians better understand patterns of deficits, and may help in the development of effective treatment or intervention programs.

Learning Disability

Many of the adaptive behaviors needed for social sufficiency, such as understanding and using language, are important in academic settings and in the learning process. A study was conducted to investigate adaptive functioning in individuals with learning disabilities. To be included in the study the individual needed to be aged 6 through 18 and have a disorder in one or more of the basic psychological processes involved in understanding or in using language, either spoken or written. This could manifest itself in imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculations. Disorders included conditions such as perceptual disabilities, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. Disorders not included were learning problems that were primarily the result of visual, hearing, or motor disabilities; mental retardation; emotional disturbance; and environmental, cultural, or emotional disadvantage. The examiner documented the individual's eligibility by providing information on intellectual functioning and academic achievement. The examiner was asked to provide additional information from an IEP and details about the individual's specific learning disability.

The demographic characteristics of these individuals are displayed in Table 8.10. There were approximately equal numbers of males and females in the sample, of whom 75 percent were Caucasian and 64 percent had mothers with at least some college education.

Table 8.18 presents the means and standard deviations of Vineland–II scores for this group. Figure 8.8 provides a graphical representation of the group's mean scores.

Table 8.18 Learning Disability Sample: Means and Standard Deviations of Domains, Subdomains, and Adaptive Behavior Composite with Comparison to Norm Sample, Ages 7–17

	Mean	*SD*	Difference from nonclinical reference group[a]
Communication	91.2	14.3	– 10.9**
Receptive	13.6	2.8	– 1.3**
Expressive	14.5	2.9	– 1.0**
Written	12.1	2.4	– 3.0**
Daily Living Skills	98.4	16.2	– 3.4
Personal	14.6	3.2	– 0.7
Domestic	15.6	3.0	0.3
Community	13.9	3.4	– 1.4**
Socialization	98.3	18.5	– 3.3
Interpersonal Relationships	14.5	2.8	– 0.6
Play and Leisure Time	14.2	3.6	– 0.9*
Coping Skills	14.7	3.7	– 0.7
Motor Skills[b]	—	—	—
Gross[b]	—	—	—
Fine[b]	—	—	—
Adaptive Behavior Composite	95.3	16.4	– 6.3**

N = 56

[a] Controlling for sex, race/ethnicity, and education level, and matched by age range with clinical group

[b] Age 6 only. *N* = 0

*$p<.05$ **$p<.01$

The mean **Adaptive Behavior** Composite score for the group of individuals with a learning disability is more than six points lower than that seen in the nonclinical reference group. The mean scores on the Daily Living Skills and Socialization Domains are similar to those found in the nonclinical reference group. This indicates that these individuals have similar levels of adaptive behaviors in these areas. Most of the adaptive behavior deficits found in the group with learning disabilities are centered in the Communication Domain, the domain concerned with the acquisition of skills prerequisite to developing academic skills. The lowest subdomain score is seen in the Written Subdomain, which focuses on emerging reading and writing skills. Vineland–II can improve the understanding of the pattern of deficits in individuals with learning disabilities and aid in the development of remediation programs.

These individuals show a slightly higher number of maladaptive behaviors, both internalizing and externalizing, than the nonclinical reference group, but these mean scores are considered in the average range.

Visual and Hearing Impairments

Visual and hearing impairments can adversely affect the development of adaptive behaviors needed for social sufficiency and competence in daily living. An assessment of the behaviors and skills of individuals with these disabilities can help caregivers and educators develop support systems and compensatory programs to increase their level of independence. Two samples were gathered to evaluate adaptive behavior functioning in individuals with these disabilities. Much of the recruitment for these individuals was done through specialized schools. As a result, a large percentage of these individuals were in residential facilities.

Visual Impairment

The 36 individuals in this sample ranged in age from 6 through 18 and had a visual impairment (blind or partially sighted) that adversely affected educational performance. The examiner provided IQ and achievement test scores, and supplied details from an IEP that described the severity of the impairment. There were equal numbers of males and females in the sample and more than 80 percent were Caucasian (see Table 8.10).

Table 8.19 presents the means and standard deviations of Vineland–II scores for the group of individuals with visual impairments. **Figure 8.9** provides a graphical representation of mean scores for the group.

Table 8.19 Visual Impairment Sample: Means and Standard Deviations of Domains, Subdomains, and Adaptive Behavior Composite with Comparison to Norm Sample, Ages 6–18

	Mean	*SD*	Difference from non-clinical reference group[a]
Communication	95.6	15.9	– 6.6*
Receptive	14.6	1.9	– 0.3
Expressive	14.5	2.9	– 1.0*
Written	13.0	2.9	– 2.1**
Daily Living Skills	82.6	16.8	– 19.4**
Personal	11.9	3.3	– 3.3**
Domestic	11.6	3.1	– 3.7**
Community	12.4	3.1	– 3.0**
Socialization	87.4	16.1	– 14.6**
Interpersonal Relationships	12.9	3.2	– 2.2**
Play and Leisure Time	11.5	3.3	– 3.6**
Coping Skills	14.1	2.7	– 1.4**
Motor Skills[b]	—	—	—
Gross[b]	—	—	—
Fine[b]	—	—	—
Adaptive Behavior Composite	86.8	15.9	– 15.0**

N = 36

[a] Controlling for sex, race/ethnicity, and education level, and matched by age range with clinical group

[b] Age 6 only. *N* = 1

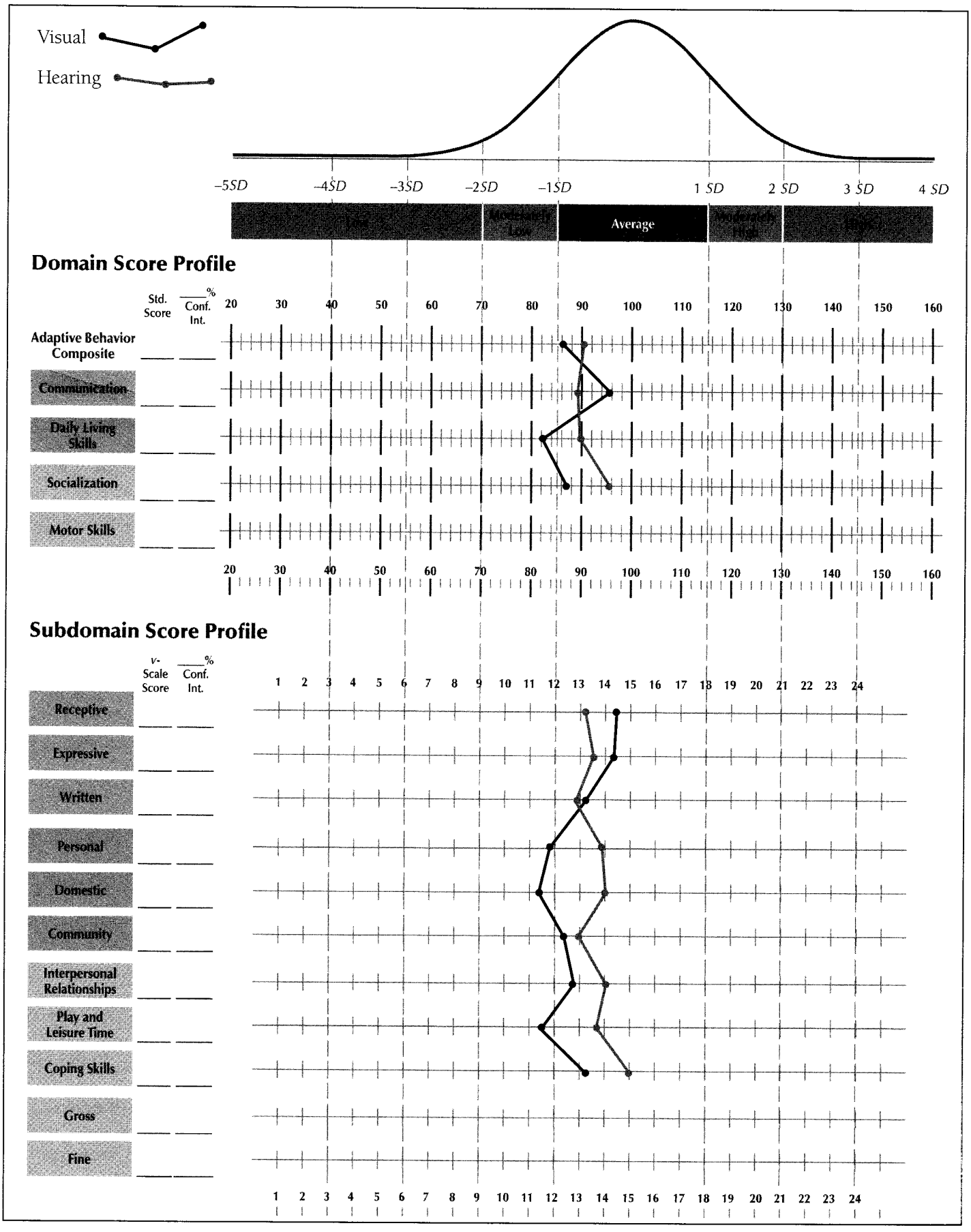
*p<.05 **p<.01

The mean Adaptive Behavior Composite score is 86.8, almost one standard deviation below the mean of the nonclinical reference group. All three domains show significant deficits, with the lowest score of 82 found in the Daily Living Skills Domain. The difficulty of handling personal care and domestic chores is reflected in the lower subdomain scores. The Socialization Domain is also adversely affected. The importance of visual cues in understanding interpersonal relationships and in participating in play and leisure activities is evident in the lower scores on those subdomains.

Individuals with visual impairments often develop increased auditory acuity to compensate for the loss of sensory input from the visual modality. Scores on the Vineland–II document that this group has relatively strong receptive and expressive communication skills compared to their overall pattern of deficits.

In general, this group show an average number of maladaptive behaviors. The somewhat high score on the Internalizing scale could be related to irrelevant item content for the disability (e.g., has poor eye contact

Figure 8.9 Profiles of mean subdomain *v*-scale scores and domain and Adaptive Behavior Composite standard scores for Visual and Hearing Impairment groups



Deaf or Hard-of-Hearing

This sample consisted of 58 school-age individuals aged 6 through 18 with a hearing impairment that adversely affected educational performance. Additional information was gathered, such as the hearing status of the parents and the primary method of communication used in the home (e.g., spoken English, American Sign Language, or Signed Exact English). The examiner provided IQ and achievement test scores, particularly reading level, and supplied either a letter from an audiologist or details from an IEP that described the severity of the impairment. There were equal numbers of males and females in the sample, and 74 percent were Caucasian (see Table 8.10). This group had a relatively high socioeconomic background, with 74 percent of the mothers having at least some college education.

Table 8.20 presents the means and standard deviations of Vineland–II scores for the group of deaf or hard-of-hearing individuals. Figure 8.9 provides a graphical representation of mean scores for the group.

Table 8.20 Hearing Impairment Sample: Means and Standard Deviations of Domains, Subdomains, and Adaptive Behavior Composite with Comparison to Norm Sample, Ages 6–18

	Mean	*SD*	Difference from nonclinical reference group[a]
Communication	89.2	13.2	– 13.5**
Receptive	13.2	2.3	– 1.8**
Expressive	13.3	2.9	– 2.3**
Written	12.8	2.5	– 2.4**
Daily Living Skills	89.7	14.0	– 12.1**
Personal	12.9	2.7	– 2.3**
Domestic	14.1	2.8	– 1.3**
Community	12.9	3.0	– 2.5**
Socialization	95.8	16.9	– 6.4**
Interpersonal Relationships	14.1	3.2	– 1.1**
Play and Leisure Time	13.6	3.2	– 1.6**
Coping Skills	15.0	3.1	– 0.5
Motor Skills[b]	—	—	—
Gross[b]	—	—	—
Fine[b]	—	—	—
Adaptive Behavior Composite	90.1	13.9	– 11.9**

N = 58

[a] Controlling for sex, race/ethnicity, and education level, and matched to age range with clinical group

[b] Age 6 only. *N* = 6

**p < .01

The mean Adaptive Behavior Composite score is 90.1, almost 12 points lower than that of the nonclinical reference sample but higher than the group with visual impairments. The mean Communication Domain and Daily Living Skills Domain scores are similar and approximately 12 to 13 points below the mean of the nonclinical reference group. The mean score in the Socialization Domain is higher, indicating a relative strength in this area. The mean scores for the maladaptive subscales are all in the average range.

Summary of Findings on Clinical Groups

The studies provide evidence that the level of adaptive functioning as measured by the Vineland–II Survey Interview Form and Parent/Caregiver Rating Form differentiates clinical groups from nonclinical groups. Results from the Vineland–II document significant deficits found in individuals with mental retardation. The mean Adaptive Behavior Composite and domain scores are at least two standard levels below the mean of the nonclinical group as required by AAMR and described in the *DSM–IV–TR* and IDEA criteria for a diagnosis of mental retardation.

Similarly, the Vineland–II documents deficits found in individuals with autism, and this is reflected in mean Adaptive Behavior Composite and domain scores at least two standard levels below the mean of the nonclinical group.

The Vineland–II also differentiates between various levels of severity within diagnostic groups. In the groups of individuals with mental retardation, the Vineland–II documents a consistent pattern of lower composite, domain, and subdomain mean scores when comparing the mild, moderate, and severe/profound groups. In the groups of individuals with autism, the Vineland–II score levels differentiate the nonverbal and verbal autism groups. There are also consistently lower composite, domain, and subdomain scores in the nonverbal group than in the verbal group.

Further support for the efficacy of the Vineland–II for use in describing adaptive behavior deficits within a diagnostic category and between diagnostic categories is shown by distinctive profile patterns of domain and subdomain scores. For example, the Vineland–II documents a relatively flat profile across domain mean scores for individuals with mental retardation. This pattern supports the AAMR criteria of generalized deficits across the domains of adaptive functioning for individuals with mental retardation.

Similarly, the Vineland–II documents particular deficits in the Expressive, Interpersonal Relationships, and Play and Leisure Time Subdomains in both autism groups. The pattern of deficits is similar in the nonverbal and verbal groups, and it is consistent with the *DSM–IV–TR* (2000) diagnostic criteria for establishing a diagnosis of autism.

The Vineland–II shows meaningful patterns of deficits in each of the other clinical groups (ADHD, EBD, LD, and visual and hearing impairments). These patterns help support the diagnoses and could also guide the planning of intervention or habilitative programs.

Evidence Based on Relationships with Other Measures

Several studies were carried out to examine the relationship between the Vineland–II and other tests commonly used in assessing adaptive behavior problems and cognitive deficits. In each of these studies, Vineland–II results are based on a combined sample of both Vineland–II Survey Interview and Parent/Caregiver Rating Forms. Unadjusted correlations and those adjusted for restriction of range are indicated for each study. Demographic information about the samples used for each correlational study is provided in **Table 8.21.**

Vineland Adaptive Behavior Scales

It is important to establish the relationship of scores between the Vineland–II and the *Vineland Adaptive Behavior Scales* (Vineland ABS; Sparrow, Balla and Cicchetti, 1984) for several reasons. The experience gained by clinicians who have used the Vineland ABS for years is vital because so many nuances with interpretation and evaluation are gained only through clinical experience. A strong correlation between the Vineland ABS and the Vineland–II enables clinicians to continue to draw upon that expertise. Furthermore, the large base of research using the Vineland ABS will continue to support the use and interpretation of the Vineland–II if the relationship is strong.

The Vineland–II and the Vineland ABS Survey Form were completed for 24 children from birth through 2, 30 children aged 3 through 6 years old, and 78 children aged 7 through 18. **Table 8.22** presents the means, standard deviations, and correlations between Vineland–II and Vineland ABS domains. The sample was fairly evenly divided between males and females; however, each group was over-represented by Caucasians and high SES (as defined by at least 1 year of college).

Table 8.21 Validity Study Samples, by Sex, Race/Ethnicity, and Mother's Education Level

	Sex				Race/Ethnicity								Mother's Education Level[a]							
	Female		Male		African American		Hispanic		White		Other[b]		11th Grade or Less		High School Graduate or GED		1–3 Years of College		4-Year Degree or Higher	
Study Group	*N*	%	*N*	%	*N*	%	*N*	%	*N*	%	*N*	%	*N*	%	*N*	%	*N*	%	*N*	%
Vineland–II																				
Ages 0–2	14	58.3	10	41.7	0	0.0	3	12.5	21	87.5	0	0.0	0	0.0	4	16.6	10	41.7	10	41.7
Ages 3–6	16	55.2	13	44.8	1	3.5	0	0.0	25	86.2	3	10.3	2	6.9	4	13.8	11	37.9	12	41.4
Ages 7–18	37	52.9	33	47.1	8	11.4	11	15.7	50	71.4	1	1.5	3	4.3	18	25.7	19	27.1	30	42.9
ABAS–II																				
Ages 0–5	26	43.3	34	56.7	6	10.0	7	11.7	47	78.3	0	0.0	4	6.7	8	13.3	17	28.3	31	51.7
Ages 5–20	39	47.6	43	52.4	9	11.0	12	14.6	61	74.4	0	0.0	5	6.1	17	20.8	27	32.9	33	40.2
Ages 17–74	27	49.1	28	50.9	1	1.8	4	7.3	49	89.1	1	1.8	2	3.6	19	34.6	17	30.9	17	30.9
WISC–III	20	71.4	8	28.6	3	10.7	3	10.7	22	78.6	0	0.0	0	0.0	4	14.3	10	35.7	14	50.0
WAIS–III	44	53.0	39	47.0	1	1.2	3	3.6	77	92.8	2	2.4	4	4.8	31	37.4	30	36.1	18	21.7
BASC–2																				
Ages 2–5	60	58.8	42	41.2	15	14.7	16	15.7	66	64.7	5	4.9	10	9.8	24	23.5	31	30.4	37	36.3
Ages 6–11	26	41.9	36	58.1	12	19.4	6	9.7	41	66.1	3	4.8	1	1.6	12	19.3	13	21.0	36	58.1
Ages 12–18	33	45.8	39	54.2	14	19.4	9	12.5	46	63.9	3	4.2	3	4.2	12	16.7	33	45.8	24	33.3

[a] For ages 0 through 25, if mother's or female guardian's education level was not reported, father's or male guardian's education level was used. Participant's education level was used for ages 26 and above.

[b] Includes American Indians, Alaska Natives, Asians, Pacific Islanders, and all other groups not classified as African American, Hispanic, or White

Table 8.22 Correlations Between the Vineland–II and Vineland ABS Domains and Adaptive Behavior Composite

Ages 0–2

	Vineland–II		Vineland ABS		Correlation	
	Mean	*SD*	Mean	*SD*	*r*	Adj *r*[a]
Communication	97.4	13.5	94.2	17.0	.65	.69
Daily Living Skills	94.0	14.5	94.4	15.1	.75	.76
Socialization	95.8	12.4	97.0	13.9	.85	.89
Motor Skills	99.7	13.1	94.9	11.7	.91	.93
Adaptive Behavior Composite	95.9	12.3	93.5	15.4	.82	.87

N = 24

[a] All correlations were corrected for restriction of range, based on the standard deviation obtained on the Vineland–II, using the variability correction of Cohen et al. (2003, p. 58)

Ages 3–6

	Vineland–II		Vineland ABS		Correlation	
	Mean	*SD*	Mean	*SD*	*r*	Adj *r*[a]
Communication	95.7	12.4	87.3	15.8	.85	.89
Daily Living Skills	87.8	9.8	78.7	14.6	.91	.96
Socialization	93.4	13.1	89.7	18.5	.94	.95
Motor Skills[b]	94.4	11.9	89.1	14.0	.86	.90
Adaptive Behavior Composite	91.4	12.4	82.7	18.5	.91	.94

N = 29

[a] All correlations were corrected for restriction of range, based on the standard deviation obtained on the Vineland–II, using the variability correction of Cohen et al. (2003, p. 58)

[b] *N* = 70

Ages 7–18

	Vineland–II		Vineland ABS		Correlation	
	Mean	*SD*	Mean	*SD*	*r*	Adj *r*[a]
Communication	99.7	13.2	99.1	14.3	.86	.89
Daily Living Skills	95.9	12.8	87.4	17.9	.88	.91
Socialization	100.4	14.8	99.3	18.7	.71	.71
Adaptive Behavior Composite	98.4	13.4	95.0	17.0	.87	.89

N = 70

[a] All correlations were corrected for restriction of range, based on the standard deviation obtained on the Vineland–II, using the variability correction of Cohen et al. (2003, p. 58)

In general, Vineland–II domain means are higher than Vineland ABS domain means, but the differences are small except for the Daily Living Skills Domain, which shows a 9-point difference for the two groups aged 3 and older. Content differences between the Vineland ABS and the Vineland–II may account for some of this difference. Several items in the Daily Living Skills of the Vineland ABS, such as "sews or hems clothes," "makes own bed," and "uses a pay telephone," are no longer considered essential adaptive behavior skills. Because these behaviors are no longer common, it is likely that a large portion of the school-age sample obtained a score of zero on such items. Thus, it may be expected that the presence of these items resulted in systematically lower scores in the Daily Living Skills Domain.

Adjusted correlations are generally very high, with most correlations in the upper .80s and .90s. The correlations indicate a high degree of consistency between the forms in the measurement of adaptive behavior skills.

Adaptive Behavior Assessment System, *Second Edition*

The Vineland–II and the *Adaptive Behavior Assessment System*, Second Edition (ABAS–II; Harrison & Oakland, 2003) were completed for 60 children aged 1 through 5, 82 individuals aged 5 through 20, and 55 individuals aged 17 through 74. The groups represent the age ranges covered by the two parent forms and the adult form of the ABAS–II. In each age group, the sample was evenly divided between males and females and representation of ethnic groups resembled census figures; however,

individuals from higher SES levels were somewhat over-represented.

Table 8.23 presents means, standard deviations, and correlations between the Vineland–II and ABAS–II scales.

Findings for ages birth through 5 years:

- The overall level of performance for this sample on each instrument as measured by the Vineland–II domains and Adaptive Behavior Composite and the ABAS–II domains and General Adaptive Composites are very similar. All the scores are very near 100, with the exception of the Practical Domain, which is just under 92.
- The adjusted correlation between Vineland–II Adaptive Behavior Composite and the ABAS–II General Adaptive Composite is .70, indicating a moderately high degree of consistency in overall adaptive behavior scores. The correlation between the domains that are most similar in content (as shown by the boldface type) are not much higher than the correlations between domains of less similar content, with the exception of the correlation between the Communication Domain and the Conceptual Domain, which is .70.
- Among the Vineland–II subdomains and the ABAS skill areas, the correlation varies widely. In several instances one correlation is much higher than the others. For example, the correlation between the Written Subdomain and the Functional Pre-Academics skill area (r = .80) is much higher than correlations between the Written Subdomain and other skill areas. Based on the description of the Functional Pre-Academics skill area in the ABAS–II manual, it is the most similar in content with the Written Subdomain. Other content areas display less distinctive relationships, indicating that while overall content coverage is similar, the Vineland–II and the ABAS–II cluster adaptive behavior skills differently.

Findings for ages 5 through 20 years:

- The mean scores on the Adaptive Behavior Composite and the General Adaptive Composite are nearly identical. The range of domain scores is small and centered around 100 on both forms. This indicates that overall, the Vineland–II and ABAS-II arrive at similar levels of adaptive behavior functioning for individuals aged 5 through 20.
- Overall, the correlations between domains and composites are higher in this group than in the birth through 5 group. Correlations among domains with similar content range from .60 to .74 and the correlation between the composite scores is .78. These correlations are only slightly larger than correlations between domains not measuring the same content.
- Among the Vineland–II subdomains and the ABAS skill areas, the correlations are generally moderately high, with most falling in the .50s. As with the birth through 5-year-old group, the correlations between areas most similar in content are among the highest correlations, but are not much higher than the other correlations. The Communication skill area in the ABAS–II correlates near .70 with several Vineland–II subdomains: Receptive, Expressive, Play and Leisure Time, and Coping Skills. Differences in the content sampling and arrangement of adaptive behaviors between the Vineland–II subdomains and the ABAS–II Skill Areas may account for this pattern. For example, the item "ends conversations appropriately" appears in the Coping Subdomain in the Vineland–II and the Communication Skill Area in the ABAS–II.

Findings for ages 17 through 74:

- The mean scores on the Vineland–II domains and the Adaptive Behavior Composite are about 5 to 8 points lower than the mean domain and General Adaptive Composite scores on the ABAS–II. It is not clear what accounts for this difference. On the one hand, because the samples are meant to be representative of the population and the standard score means should be near 100, the fact that the Vineland–II mean scores are closer to 100 may indicate that the ABAS–II slightly overstates adaptive functioning in adults. On the other hand, if the samples are not representative, the results may suggest that ceiling effects are more pronounced in the Vineland–II, which would restrict performance toward the mean.
- Among the domains and composites, the correlations are generally high, with three of the four domains of like content (in bold) above .70. The correlation between the two composite scores is .69.
- Among the subdomains and skill areas, the correlations vary considerably more than in the age 5 through 20 group. The bold coefficients that represent the correlation between two scales most similar in content are generally the highest correlations for the Expressive, Written, Domestic, and Interpersonal Relationships Subdomains, and in the other subdomain the correlations are among the highest, except for the Community Subdomain. These patterns indicate that the structure of adaptive behavior areas, as it pertains to adults is similar between the Vineland–II and the ABAS–II.

Table 8.23 Correlation of Vineland–II Domains, Subdomains, and Adaptive Behavior Composite with ABAS–II Skill Areas and Composites, by Age

Ages 0–5

ABAS–II Parent/Primary Caregiver Form	*N*	Vineland–II																												ABAS–II	
		Communication		Receptive		Expressive		Written[a]		Daily Living Skills		Personal		Domestic[b]		Community[b]		Socialization		Interpersonal Relationships		Play and Leisure Time		Coping Skills[b]		Motor Skills		Gross		Fine		Adaptive Behavior Composite			
		Raw	Adj[c]	Raw	Adj[c]	Raw	Adj[c]	Raw	Adj[c]	Raw	Adj[c]	Raw	Adj[c]	Raw	Adj[c]	Raw	Adj[c]	Raw	Adj[c]	Raw	Adj[c]	Raw	Adj[c]	Raw	Adj[c]	Raw	Adj[c]	Raw	Adj[c]	Raw	Adj[c]	Raw	Adj[c]	Mean	*SD*
Communication	60	.54	.60	.41	.46	.55	**.62**	.30	.28	.32	.37	.19	.22	.24	.31	.39	.45	.44	.50	.47	.54	.36	.43	.33	.36	.32	.35	.28	.33	.28	.33	.50	.57	10.0	2.8
Community Use[b]	49	.40	.45	.25	.29	.54	.61	.13	.12	.41	.47	.27	.31	.37	.46	.39	**.45**	.47	.53	.51	.58	.33	.40	.44	.48	.28	.30	.27	.32	.24	.28	.47	.54	9.8	2.8
Functional Pre-Academics[b]	49	.76	.81	.52	.57	.70	.76	.82	**.80**	.45	.51	.26	.30	.28	.36	.57	.64	.47	.53	.42	.49	.43	.51	.47	.51	.42	.45	.28	.33	.43	.50	.63	.70	10.3	3.0
Home Living[b]	49	.52	.58	.54	.59	.43	.50	.32	.30	.62	.68	.52	.57	.58	**.68**	.46	.53	.53	.59	.54	.61	.47	.55	.45	.49	.43	.46	.41	.47	.37	.43	.63	.70	9.4	2.3
Health and Safety	60	.27	.31	.42	.47	.15	.18	.08	.08	.29	.34	.26	**.30**	.42	.52	.36	**.42**	.40	.46	.38	.44	.30	.37	.43	.47	.32	.35	.35	.41	.29	.34	.40	.47	8.8	2.9
Leisure	60	.49	.55	.46	.51	.40	.46	.38	.36	.33	.38	.35	.40	.38	.47	.30	.35	.46	.52	.54	.61	.36	**.43**	.34	.37	.43	.46	.39	.45	.39	.45	.53	.60	10.4	3.0
Self-Care	60	.27	.31	.31	.35	.20	.24	.21	.20	.27	.31	.30	**.34**	.38	.47	.22	.26	.24	.28	.19	.23	.18	.22	.31	.34	.22	.24	.19	.23	.31	.36	.31	.37	7.3	2.8
Self-Direction	60	.47	.53	.49	.54	.40	.46	.19	.18	.22	.26	.24	.27	.22	.28	.28	.33	.39	.45	.35	.41	.32	.39	.40	**.44**	.25	.27	.12	.14	.35	.41	.41	.48	10.2	3.3
Social	60	.52	.58	.48	.53	.47	.54	.33	.31	.42	.48	.37	.42	.38	.47	.47	.54	.51	.57	.53	**.60**	.36	.43	.55	.59	.39	.42	.31	.36	.39	.45	.57	.64	9.7	3.2
Motor	60	.40	.45	.35	.40	.36	.42	.38	.36	.38	.44	.44	.49	.27	.34	.30	.35	.39	.45	.42	.49	.30	.37	.31	.34	.51	.54	.45	**.52**	.46	**.53**	.52	.59	10.4	3.1
Conceptual Domain	60	.67	**.72**	.54	.59	.63	.70	.57	.55	.34	.39	.25	.29	.29	.37	.48	.55	.50	.56	.49	.56	.40	.48	.47	.51	.37	.40	.25	.30	.41	.47	.58	.65	100.0	15.9
Social Composite Domain	60	.55	.61	.51	.56	.48	.55	.37	.35	.41	.47	.40	.45	.41	.51	.42	.49	.53	**.59**	.58	.65	.39	.47	.48	.52	.44	.47	.37	.43	.42	.49	.60	.67	99.0	16.7
Practical Domain	60	.38	.43	.43	.48	.32	.38	.21	.20	.41	**.47**	.37	.42	.52	.62	.42	.49	.45	.51	.43	.50	.34	.41	.49	.53	.33	.36	.34	.40	.33	.39	.48	.55	91.6	14.5
General Adaptive Composite	60	.59	.65	.55	.61	.53	.60	.42	.40	.44	.50	.39	.44	.44	.54	.49	.56	.55	.61	.56	.63	.41	.49	.51	.55	.46	.49	.39	.45	.46	.53	.63	**.70**	96.6	15.7
Vineland–II Mean	60	100.6		15.2		15.4		15.4		97.3		14.5		14.8		15.0		99.8		15.5		15.1		14.4		101.2		15.2		15.4		99.5			
Vineland–II *SD*	60	12.9		2.6		2.5		3.2		12.7		2.6		2.3		2.5		12.7		2.5		2.4		2.7		13.7		2.5		2.5		12.4			

[a] Ages 3–5 $N = 2$

[b] Ages 1–5 $N = 49$

[c] All correlations were corrected for restriction of range, based on the standard deviation obtained on the Vineland–II, using the variability correction of Cohen et al. (2003, p. 58).

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Table 8.23, *continued*

Ages 5–20

ABAS–II Parent/Primary Caregiver Form	*N*	Vineland–II																														ABAS–II	
		Communication		Receptive		Expressive		Written		Daily Living Skills		Personal		Domestic		Community		Socialization		Interpersonal Relationships		Play and Leisure Time		Coping Skills		Motor Skills[a]		Gross[a]		Fine[a]		Adaptive Behavior Composite			
		Raw	Adj[b]	Raw	Adj[b]	Raw	Adj[b]	Raw	Adj[b]	Raw	Adj[b]	Raw	Adj[b]	Raw	Adj[b]	Raw	Adj[b]	Raw	Adj[b]	Raw	Adj[b]	Raw	Adj[b]	Raw	Adj[b]	Raw	Adj[b]	Raw	Adj[b]	Raw	Adj[b]	Raw	Adj[b]	Mean	*SD*
Communication	82	.69	.69	.65	.73	.63	**.68**	.54	.59	.54	.56	.37	.43	.52	.53	.46	.53	.73	.74	.53	.58	.63	.71	.73	.71	—	—	—	—	—	—	.73	.73	10.5	2.7
Community Use	82	.51	.51	.54	.63	.47	.52	.31	.35	.63	.65	.51	.58	.56	.57	.50	**.57**	.66	.67	.55	.61	.58	.66	.61	.59	—	—	—	—	—	—	.67	.67	9.7	3.7
Functional Academics	82	.66	.66	.59	.67	.57	.62	.52	**.57**	.67	.69	.48	.55	.61	.62	.58	.65	.63	.64	.44	.49	.50	.59	.64	.62	—	—	—	—	—	—	.73	.73	10.2	3.0
Home Living	82	.54	.54	.52	.61	.49	.54	.39	.44	.62	.64	.45	.52	.65	**.66**	.44	.51	.50	.51	.33	.37	.42	.50	.55	.53	—	—	—	—	—	—	.62	.62	8.7	4.1
Health and Safety	82	.47	.47	.47	.55	.51	.56	.30	.34	.57	.59	.44	**.51**	.57	.58	.43	**.50**	.60	.61	.45	.50	.50	.59	.59	.57	—	—	—	—	—	—	.61	.61	10.0	3.1
Leisure	82	.33	.33	.27	.33	.24	.27	.35	.40	.44	.46	.34	.40	.38	.39	.37	.43	.47	.48	.30	.34	.47	**.55**	.45	.43	—	—	—	—	—	—	.47	.47	10.7	2.5
Self-Care	82	.46	.46	.41	.49	.38	.43	.33	.37	.59	.61	.49	**.56**	.48	.49	.48	.55	.54	.55	.38	.43	.48	.56	.52	.50	—	—	—	—	—	—	.59	.59	9.5	2.6
Self-Direction	82	.52	.52	.45	.53	.41	.46	.43	.48	.58	.60	.42	.49	.55	.56	.49	.56	.62	.63	.42	.47	.56	.65	.64	**.62**	—	—	—	—	—	—	.66	.66	9.2	3.8
Social	82	.48	.48	.38	.46	.42	.47	.41	.46	.47	.49	.27	.32	.46	.47	.42	.49	.62	.63	.40	**.45**	.54	.63	.63	.61	—	—	—	—	—	—	.59	.59	9.6	3.3
Work	7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Conceptual Domain	82	.68	**.68**	.61	.69	.56	.61	.54	.59	.65	.67	.46	.53	.63	.64	.53	.60	.70	.71	.49	.54	.59	.67	.71	.69	—	—	—	—	—	—	.77	.77	101.1	16.6
Social Composite Domain	82	.45	.45	.36	.43	.37	.42	.41	.46	.52	.54	.33	.39	.48	.49	.44	.51	.59	**.60**	.37	.42	.54	.63	.60	.58	—	—	—	—	—	—	.59	.59	101.3	14.5
Practical Domain	82	.60	.60	.60	.68	.55	.61	.41	.46	.72	**.74**	.55	.62	.70	.71	.55	.62	.66	.67	.49	.54	.56	.65	.66	.64	—	—	—	—	—	—	.74	.74	97.6	17.3
General Adaptive Composite	82	.64	.64	.59	.67	.57	.62	.48	.53	.70	.72	.50	.57	.66	.67	.56	.63	.73	.74	.52	.57	.63	.71	.73	.71	—	—	—	—	—	—	.78	.78	99.8	17.6
Vineland–II Mean	82	99.8		14.1		14.9		15.0		99.3		14.6		15.0		15.0		100.2		15.0		14.9		14.8		—		—		—		99.7			
Vineland–II *SD*	82	15.1		2.4		2.6		2.6		14.1		2.5		2.9		2.5		14.5		2.6		2.4		3.2		—		—		—		14.9			

[a] Ages 5–6 N = 8

[b] All correlations were corrected for restriction of range, based on the standard deviation obtained on the Vineland–II, using the variability correction of Cohen et al. (2003, p. 58).

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Table 8.23 *continued*

Ages 17–74

ABAS–II Parent/Primary Caregiver Form	*N*	Vineland–II																														ABAS–II	
		Communication		Receptive		Expressive		Written		Daily Living Skills		Personal		Domestic		Community		Socialization		Interpersonal Relationships		Play and Leisure Time		Coping Skills		Motor Skills[a]		Gross[a]		Fine[a]		Adaptive Behavior Composite			
		Raw	Adj[b]	Raw	Adj[b]	Raw	Adj[b]	Raw	Adj[b]	Raw	Adj[b]	Raw	Adj[b]	Raw	Adj[b]	Raw	Adj[b]	Raw	Adj[b]	Raw	Adj[b]	Raw	Adj[b]	Raw	Adj[b]	Raw	Adj[b]	Raw	Adj[b]	Raw	Adj[b]	Raw	Adj[b]	Mean	*SD*
Communication	55	.58	.85	–.03	–.09	.73	**.95**	.39	.62	.29	.50	.21	.47	.24	.38	.08	.20	.35	.67	.21	.51	.39	.79	.13	.34	—	—	—	—	—	—	.47	.63	12.5	1.2
Community Use	55	.24	.50	–.07	–.21	.16	.44	.28	.48	.12	.23	.06	.15	.08	.13	.17	**.40**	.11	.26	.01	.03	.03	.09	.16	.40	—	—	—	—	—	—	.20	.30	12.4	1.1
Functional Academics	55	.39	.70	–.07	–.21	.32	.71	.43	**.67**	.30	.52	.08	.20	.34	.52	.16	.38	.06	.14	–.04	–.11	–.11	–.32	.21	.51	—	—	—	—	—	—	.31	.45	12.0	1.8
Home Living	55	.20	.43	–.20	–.52	.30	.69	.25	.44	.36	.60	–.02	–.05	.53	**.72**	.06	.15	.05	.12	–.12	–.31	–.01	–.03	.06	.16	—	—	—	—	—	—	.28	.41	12.0	2.2
Health and Safety	55	.08	.18	–.42	–.81	.26	.63	.20	.36	.27	.47	.11	**.27**	.19	.31	.13	.31	.17	.39	–.05	–.14	.04	.12	.18	.45	—	—	—	—	—	—	.33	.47	12.0	1.0
Leisure	55	.45	.76	–.03	–.09	.44	.83	.38	.61	.46	.71	.30	.62	.40	.59	.22	.49	.31	.62	.17	.43	.17	**.46**	.29	.64	—	—	—	—	—	—	.48	.64	12.1	2.0
Self-Care	55	.22	.46	.00	.00	.36	.76	.12	.22	.14	.26	.32	**.65**	–.01	–.02	.14	.33	.21	.46	.26	.59	.19	.50	.07	.19	—	—	—	—	—	—	.16	.24	11.8	0.9
Self-Direction	55	.32	.61	–.19	–.50	.50	.87	.29	.49	.54	.78	.30	.62	.46	.65	.25	.54	.37	.69	.14	.36	.22	.56	.29	**.64**	—	—	—	—	—	—	.51	.67	12.1	2.1
Social	55	.32	.61	–.05	–.15	.34	.74	.33	.55	.49	.73	.42	.76	.27	.42	.42	.76	.39	.72	.35	**.71**	.07	.21	.38	.75	—	—	—	—	—	—	.47	.63	12.2	2.0
Work	45	.22	.46	–.11	–.32	.22	.56	.32	.54	.42	.66	.22	.49	.22	.35	.51	**.83**	.39	.72	.31	.66	–.01	–.03	.50	.84	—	—	—	—	—	—	.42	.58	11.9	1.5
Conceptual Domain	55	.46	**.77**	–.14	–.39	.52	.88	.44	.68	.51	.75	.25	.54	.48	.67	.22	.49	.32	.63	.09	.24	.19	.50	.28	.62	—	—	—	—	—	—	.55	.71	111.5	9.3
Social Domain	55	.44	.75	–.07	–.21	.42	.81	.43	.67	.53	.77	.38	.72	.38	.56	.36	.69	.39	**.72**	.29	.64	.12	.34	.38	.75	—	—	—	—	—	—	.55	.71	111.1	10.5
Practical Domain	55	.35	.65	–.12	–.34	.27	.64	.43	.67	.34	**.57**	.11	.27	.30	.46	.30	.62	.14	.32	–.02	–.05	–.01	–.03	.29	.64	—	—	—	—	—	—	.35	.50	111.7	9.4
General Adaptive Composite	55	.41	.72	–.18	–.48	.43	.82	.46	.70	.51	.75	.23	.51	.41	.60	.36	.69	.33	.65	.11	.29	.09	.26	.38	.75	—	—	—	—	—	—	.53	.69	111.0	8.6
Vineland–II Mean	55	103.0		15.5		15.8		15.3		103.9		15.6		15.1		15.9		105.4		15.8		15.9		16.1		—		—		—		106.2			
Vineland–II *SD*	55	6.5		1.0		1.0		1.6		7.8		1.2		1.8		1.2		6.2		1.1		1.0		1.1		—		—		—		9.8			

[a] Ages 50–74 $N = 11$

[b] All correlations were corrected for restriction of range, based on the standard deviation obtained on the Vineland–II, using the variability correction of Cohen et al. (2003, p. 58).

Wechsler Intelligence Scale for Children, *Third Edition and* Wechsler Adult Intelligence Scale, *Third Edition*

The Vineland–II and the *Wechsler Intelligence Scale for Children,* Third Edition (WISC–III; Wechsler, 1991) and *Wechsler Adult Intelligence Scale,* Third Edition (WAIS–III; Wechsler, 1997) were completed for 28 children aged 6 through 16 and 83 adults aged 17 through 68, respectively. The groups represent the age ranges covered by the WISC–III and WAIS–III respectively. The WISC–III sample had twice as many females as males and it had a high proportion of mothers with a college degree. The WAIS–III sample was evenly divided between males and females. It reflected the census figures on SES quite well, but was almost entirely comprised of Caucasians.

Table 8.24 presents means, standard deviations, and correlations between the Vineland–II and WISC–III scales, and **Table 8.25** presents means, standard deviations, and correlations between the Vineland–II and WAIS–III scales.

Findings for Vineland–II and WISC–III sample:

- The overall level of adaptive behavior functioning as measured by the Vineland–II Adaptive Behavior Composite is very similar to the Full Scale IQ from the WISC–III. This is not unexpected given that both instruments are centered at a mean standard score of 100 and the sample was relatively representative of the population. This is true for the mean domain scores as well.
- Overall the correlation between the two instruments is low, with a near zero correlation between the Adaptive Behavior Composite score and the Full Scale IQ score. Adaptive behavior measures differ markedly from measures of intelligence. For instance, adaptive behavior measures are grounded in skill essential for people to function in their everyday lives, whereas intelligence measures are grounded in academic skills and reasoning. Adaptive behavior scores measure whether an individual performs the correct behavior or skill when it is needed, which is very different from just saying that someone knows how to perform a behavior. Among the adaptive behaviors, only scores on the Communication Domain would be expected to correlate with scores on measures of intelligence because both measure academic skills. The correlation between the Communication Domain and the WISC–III scales ranged from .30 to .36, indicating a modest relationship with IQ scores.

Table 8.24 Correlation of Vineland–II Domains and Adaptive Behavior Composite with WISC–III Composites, Ages 6–16

		Vineland–II										WISC–III	
		Communication		Daily Living Skills		Socialization		Motor Skills[a]		Adaptive Behavior Composite			
WISC–III	*N*	Raw	Adj[b]	Raw	Adj[b]	Raw	Adj[b]	Raw	Adj[b]	Raw	Adj[b]	Mean	*SD*
Verbal IQ	28	.26	.30	.26	.32	−.15	−.22	—	—	.14	.19	105.9	13.3
Performance IQ	28	.30	.35	.07	.09	−.33	−.47	—	—	.01	.01	105.1	12.0
Full Scale IQ	28	.31	.36	.20	.25	−.27	−.39	—	—	.09	.12	105.7	12.3
Vineland–II Mean	28	106.6		107.2		108.5		—		107.9			
Vineland–II *SD*	28	12.8		11.9		9.9		—		11.1			

[a] Age 6 only. $N = 1$

[b] All correlations were corrected for restriction of range, based on the standard deviation obtained on the Vineland–II, using the variability correction of Cohen et al. (2003, p. 58).

Findings for Vineland–II and WAIS–III sample:

- Generally, the mean scores on the Vineland–II domains and Adaptive Behavior Composite are from three to six points lower than WAIS–III IQ scores. The correlation between the Vineland–II Adaptive Behavior Composite and the WAIS–III Full Scale IQ is .20, and the correlation between the Communication Domain and the Full Scale IQ is .30. These findings are further evidence that intelligence tests and measures of adaptive behavior functioning assess a very different array of skills and behaviors. The pattern of correlations is similar to the relationships found between the Vineland ABS Survey Form and the Kaufman Assessment Battery for Children (Kaufman & Kaufman, 1983). Such patterns emphasize the need to assess both cognitive ability and adaptive functioning when making diagnostic decisions.

Behavior Assessment System for Children, *Second Edition*

The Vineland–II and the Parent Rating Scales (PRS) of the *Behavior Assessment System for Children,* Second Edition (BASC–2; Reynolds & Kamphaus, 2004) were completed for 102 children aged 2 through 5, 62 children aged 6 through 11, and 72 adolescents aged 12 through 18. The three groups represent the age ranges covered by the three BASC–2 forms used in this study, the Parent Rating Scale Preschool (PRS–P), the Parent Rating Scale Child (PRS–C), and the Parent Rating Scale Adolescent (PRS–A). For all three studies, the sample was evenly divided between males and females, and it was representative of U.S. census figures for race/ethnicity and reasonably representative of SES.

Table 8.26 presents means and standard deviations of the Vineland–II and BASC–2 scales, and the correlations between the two instruments for the BASC–2 PRS–P, BASC–2 PRS–C, and BASC–2 PRS–A forms, respectively.

Findings for Vineland–II and BASC–2 PRS–P sample:

- The BASC–2 forms primarily are measures of maladaptive behaviors, whereas, the Vineland–II is primarily a measure of adaptive behavior. However, the BASC–2 has several measures of adaptive functioning, including: the Adaptive Skills Composite, the Adaptability, Social Skills, Activities of Daily Living, and Functional Communication scales that measure behavior that is similar to the Vineland–II domains. Likewise, the Vineland–II has three maladaptive subscales: Internalizing, Externalizing, and the Maladaptive Behavior Index that correspond to the Internalizing Problems, Externalizing Problems, and Behavior Symptoms Index of the BASC–2. In the tables the values representing correlations between scales alike in content are in bold. The correlations between like scales on the Vineland–II and the BASC–2 are not strong in this age group, but the pattern of

Table 8.25 Correlation of Vineland–II Domains and Adaptive Behavior Composite with WAIS–III Composites, Ages 17–68

		Vineland–II											
		Communication		Daily Living Skills		Socialization		Motor Skills[a]		Adaptive Behavior Composite		WAIS–III	
WAIS–II	*N*	Raw	Adj[b]	Raw	Adj[b]	Raw	Adj[b]	Raw	Adj[b]	Raw	Adj[b]	Mean	*SD*
Verbal IQ	83	.17	.26	.06	.09	.16	.30	—	—	.16	.22	108.9	17.1
Performance IQ	83	.22	.33	−.01	−.02	.06	.12	—	—	.11	.15	110.5	14.2
Full Scale IQ	83	.20	.30	.04	.06	.14	.27	—	—	.15	.20	110.6	16.3
Vineland–II Mean	83	102.7		104.3		107.0		—		105.9			
Vineland–II *SD*	83	9.6		9.9		7.7		—		10.9			

[a] Ages 50–68 $N = 7$

[b] All correlations were corrected for restriction of range, based on the standard deviation obtained on the Vineland–II, using the variability correction of Cohen et al. (2003, p. 58).

correlation shows the expected arrangement, with correlations generally highest among scales with like content and correlations negative between adaptive behavior scales and maladaptive behavior scales. The correlation between the Vineland–II Adaptive Behavior Composite and the Adaptive Skills Composite is .46. The Vineland–II Communication Domain and BASC–2 Functional Communication scale correlate .62, and that is the strongest correlation between the Communication Domain and any BASC–2 scale. Similarly, the Daily Living Skills Domain correlates most highly with the Activities of Daily Living scale (r = .36); and the Socialization Domain correlates most highly with the Social Skill scale (r = .44). The Vineland–II Internalizing subscale correlates modestly with the Internalizing Problems Composite (r = .34), but it correlates most strongly with the Externalizing Problems Composite. Maladaptive subscales correlate most highly with their counterparts on the BASC–II, and the Maladaptive Behavior Index correlates .80 with the Behavior Symptoms Index.

Table 8.26 Correlation of Vineland–II Domains, Adaptive Behavior Composite, and Maladaptive Behavior Subscales and Index with BASC–2 Scales and Composites, by Age

Ages 3–5

		Vineland–II																	
												Maladaptive Behavior							
		Communication		Daily Living Skills		Socialization		Motor Skills		Adaptive Behavior Composite		Internalizing		Externalizing		Maladaptive Behavior Index		BASC–2	
BASC–2 PRS–P Form	*N*	Raw	Adj[a]	Raw	Adj[a]	Raw	Adj[a]	Raw	Adj[a]	Raw	Adj[a]	Raw	Adj[a]	Raw	Adj[a]	Raw	Adj[a]	Mean	*SD*
Composite																			
Externalizing Problems	67	−.36	−.39	−.25	−.25	−.33	−.34	−.19	−.19	−.33	−.34	.50	.57	.49	**.52**	.57	.60	48.7	10.0
Internalizing Problems	67	−.16	−.17	−.16	−.16	−.13	−.13	−.15	−.15	−.17	−.18	.29	**.34**	.25	.27	.32	.34	48.7	9.6
Adaptive Skills	67	.50	.53	.35	.36	.39	.40	.29	.29	.45	**.46**	−.42	−.49	−.39	−.41	−.46	−.49	52.4	9.4
Behavioral Symptoms Index	67	−.43	−.46	−.30	−.31	−.40	−.41	−.28	−.28	−.42	−.43	.49	.56	.42	.44	.53	**.56**	48.0	10.3
Scale																			
Hyperactivity	67	−.36	−.39	−.22	−.22	−.30	−.31	−.25	−.25	−.33	−.34	.49	.56	.49	.52	.56	.59	48.1	9.7
Aggression	67	−.32	−.35	−.23	−.23	−.31	−.32	−.10	−.10	−.28	−.29	.45	.52	.45	.48	.53	.56	49.2	10.0
Anxiety	67	.00	.00	−.05	−.05	.05	.05	−.07	−.07	−.02	−.02	.14	.17	.21	.22	.17	.18	49.2	10.0
Depression	67	−.24	−.26	−.24	−.24	−.24	−.24	−.18	−.18	−.26	−.27	.35	.41	.26	.28	.34	.36	49.5	10.5
Somatization	67	−.10	−.11	−.04	−.04	−.10	−.10	−.05	−.05	−.09	−.09	.15	.18	.07	.07	.21	.22	48.3	8.8
Atypicality	67	−.33	−.36	−.08	−.08	−.25	−.25	−.20	−.20	−.25	−.26	.46	.53	.38	.40	.47	.50	47.3	9.0
Withdrawal	67	−.45	−.48	−.37	−.38	−.54	−.55	−.38	−.38	−.52	−.53	.22	.26	.13	.14	.19	.20	47.7	8.3
Attention Problems	67	−.39	−.42	−.30	−.31	−.30	−.31	−.27	−.27	−.37	−.38	.32	.38	.29	.31	.41	.43	49.1	9.5
Adaptability	67	.20	.22	.11	.11	.21	.21	.17	.17	.20	.21	−.24	−.28	−.19	−.20	−.25	−.27	51.0	9.2
Social Skills	67	.40	.43	.26	.26	.43	**.44**	.21	.21	.38	.39	−.23	−.27	−.22	−.23	−.27	−.29	51.5	9.4
Activities of Daily Living	67	.35	.38	.35	**.36**	.21	.21	.26	.26	.34	.35	−.34	−.40	−.38	−.40	−.39	−.41	52.8	9.1
Functional Communication	67	.59	**.62**	.35	.36	.37	.38	.29	.29	.47	.48	−.43	−.50	−.41	−.43	−.47	−.50	52.4	10.3
Vineland–II Mean	67	101.5		102.1		102.2		103.7		102.7		14.9		14.8		15.0			
Vineland–II *SD*	67	13.7		14.7		14.7		14.9		14.5		2.5		2.8		2.8			

Note: BASC–2 scores are *T* scores

[a] All correlations were corrected for restriction of range, based on the standard deviation obtained on the Vineland–II, using the variability correction of Cohen et al. (2003, p. 58).

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Findings for Vineland–II and BASC–2 PRS–C sample:

- The correlations with the BASC–2 PRS–C Form, among scales with like content are higher than those with the BASC–2 PRS–P Form. The Vineland–II Communication Domain correlates more strongly with the BASC–2 Functional Communication Scale (r = .60) than with any other BASC–2 scale, and the Vineland–II Daily Living Skills Domain correlates more strongly with the BASC–2 Activities of Daily Living (r = .47) than with any other BASC–2 scale. The Vineland–II Socialization Domain correlates moderately with each of the adaptive behavior scales on the BASC–2. Among the maladaptive subscales, the correlations are moderately high and in the expected direction between the Vineland–II Externalizing subscale and the BASC–2 Externalizing Problems composite (r = .60), and between the Vineland–II Maladaptive Behavior Index and the BASC–2 Behavioral Symptoms Index (r = .80). The correlation between the Vineland–II Internalizing subscale and the BASC–2 Internalizing Problems composite is moderate (r = .44).

Table 8.26, *continued*
Ages 6–11

		Vineland–II																	
												Maladaptive Behavior							
		Communication		Daily Living Skills		Socialization		Motor Skills[a]		Adaptive Behavior Composite		Internalizing		Externalizing		Maladaptive Behavior Index		BASC–2	
BASC–2 PRS–C Form	*N*	Raw	Adj[b]	Raw	Adj[b]	Raw	Adj[b]	Raw	Adj[b]	Raw	Adj[b]	Raw	Adj[b]	Raw	Adj[b]	Raw	Adj[b]	Mean	*SD*
Composite																			
Externalizing Problems	62	–.35	–.33	–.25	–.26	–.47	–.42	–.23	–.33	–.42	–.42	.38	.40	.57	**.60**	.58	.65	49.7	8.0
Internalizing Problems	62	–.34	–.32	–.17	–.18	–.32	–.28	–.22	–.32	–.34	–.34	.42	**.44**	.43	.45	.48	.55	47.1	8.1
Adaptive Skills	62	.52	.50	.45	.47	.58	.53	.27	.39	.59	.59	–.58	–.61	–.53	–.56	–.62	–.69	50.5	9.7
Behavioral Symptoms Index	62	–.56	–.54	–.41	–.43	–.62	–.57	–.02	–.03	–.60	–.60	.62	.65	.67	.70	.74	**.80**	48.8	8.5
Scale																			
Hyperactivity	62	–.40	–.38	–.36	–.38	–.52	–.47	.14	.21	–.48	–.48	.31	.33	.42	.44	.49	.56	49.3	9.5
Aggression	62	–.18	–.17	–.02	–.02	–.32	–.28	.07	.10	–.21	–.21	.32	.34	.49	.52	.46	.53	49.9	7.6
Conduct Problems	62	–.28	–.27	–.21	–.22	–.32	–.28	–.58	–.73	–.34	–.34	.32	.34	.52	.55	.50	.57	50.0	8.5
Anxiety	62	–.14	–.13	–.06	–.06	–.04	–.04	–.30	–.43	–.12	–.12	.27	.29	.19	.20	.28	.33	46.2	7.9
Depression	62	–.35	–.33	–.16	–.17	–.42	–.38	–.23	–.33	–.38	–.38	.41	.43	.54	.57	.54	.61	48.4	7.1
Somatization	62	–.31	–.29	–.17	–.18	–.30	–.27	–.12	–.18	–.31	–.31	.34	.36	.34	.36	.36	.42	48.4	8.9
Atypicality	62	–.61	–.59	–.43	–.45	–.47	–.42	.15	.22	–.55	–.55	.72	.74	.53	.56	.69	.75	48.7	9.1
Withdrawal	62	–.40	–.38	–.28	–.30	–.45	–.40	.17	.25	–.41	–.41	.54	.57	.48	.51	.52	.59	49.2	10.7
Attention Problems	62	–.47	–.45	–.47	–.49	–.53	–.48	–.50	–.65	–.56	–.56	.41	.43	.49	.52	.56	.63	48.8	9.9
Adaptability	62	.39	.37	.38	–.40	.61	.56	.19	.28	.53	.53	–.56	–.59	–.58	–.61	–.66	–.73	51.0	10.3
Social Skills	62	.37	.35	.30	.32	.42	**.38**	.09	.13	.41	.41	–.38	–.40	–.38	–.40	–.41	–.47	50.1	10.1
Leadership	62	.39	.37	.31	.33	.47	.42	.25	.36	.45	.45	–.50	–.53	–.45	–.48	–.52	–.59	50.7	10.0
Activities of Daily Living	62	.52	.50	.45	**.47**	.53	.48	.16	.24	.56	.56	–.47	–.50	–.44	–.46	–.54	–.61	50.2	9.1
Functional Communication	62	.62	**.60**	.53	.55	.46	.41	.50	.65	.61	.61	–.56	–.59	–.41	–.43	–.52	–.59	49.8	8.2
Vineland–II Mean	62	108.3		109.3		108.3		108.0		108.6		14.9		15.0		15.3			
Vineland–II *SD*	62	15.9		14.1		17.1		10.0		15.1		2.8		2.8		2.5			

Note: BASC–2 scores are *T* scores

[a] Age 6 only. *N* = 15

[b] All correlations were corrected for restriction of range, based on the standard deviation obtained on the Vineland–II, using the variability correction of Cohen et al. (2003, p. 58).

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Findings for Vineland–II and BASC–2 PRS–A sample:

- Among the adolescent sample taking the BASC–2 PRS–A, the Adaptive Behavior Composite has a correlation of .50 with the BASC–2 Adaptive Skills composite, and each of the Vineland–II domains correlates modestly with their counterparts on the BASC–2. There is a tendency for the Vineland–II domains to correlate modestly with all of the BASC–2 adaptive behavior scales, but not highly with any scale. However, a rather distinct pattern of correlations among the maladaptive scales emerges with each of the Vineland–II maladaptive subscales correlating most highly with its counterpart on the BASC–2, and the Maladaptive Behavior Index is moderately highly correlated with the Behavior Symptoms Index (r = .69).

Table 8.26, *continued*
Ages 12–18

		Vineland–II															
										Maladaptive Behavior							
		Communication		Daily Living Skills		Socialization		Adaptive Behavior Composite		Internalizing		Externalizing		Maladaptive Behavior Index		BASC–2	
BASC–2 PRS–A Form	*N*	Raw	Adj[a]	Raw	Adj[a]	Raw	Adj[a]	Raw	Adj[a]	Raw	Adj[a]	Raw	Adj[a]	Raw	Adj[a]	Mean	*SD*
Composite																	
Externalizing Problems	72	−.26	−.29	−.07	−.08	−.29	−.31	−.22	−.23	.48	.56	.63	**.74**	.58	.66	48.5	8.3
Internalizing Problems	72	−.31	−.35	−.06	−.07	−.22	−.24	−.22	−.23	.57	**.66**	.43	.54	.48	.56	47.3	8.8
Adaptive Skills	72	.39	.43	.38	.42	.49	.52	.48	**.50**	−.48	−.56	−.35	−.45	−.41	−.49	52.5	9.7
Behavioral Symptoms Index	72	−.35	−.39	−.19	−.21	−.39	−.42	−.34	−.35	.59	.67	.59	.71	.61	**.69**	47.6	9.4
Scale																	
Hyperactivity	72	−.24	−.27	−.13	−.15	−.33	−.36	−.24	−.25	.48	.56	.56	.68	.57	.66	48.9	9.9
Aggression	72	−.24	−.27	−.03	−.03	−.24	−.26	−.19	−.20	.42	.50	.64	.75	.55	.64	48.6	8.4
Conduct Problems	72	−.19	−.21	.01	.01	−.17	−.18	−.13	−.14	.31	.38	.44	.56	.38	.46	48.5	7.9
Anxiety	72	−.31	−.35	−.15	−.17	−.23	−.25	−.25	−.26	.47	.55	.29	.38	.36	.43	48.1	9.3
Depression	72	−.28	−.31	−.04	−.04	−.19	−.21	−.19	−.20	.59	.67	.48	.60	.53	.62	48.2	9.5
Somatization	72	−.13	−.15	.07	.08	−.09	−.10	−.07	−.07	.31	.38	.27	.36	.27	.33	47.0	7.0
Atypicality	72	−.22	−.25	−.12	−.13	−.24	−.26	−.21	−.22	.32	.39	.35	.45	.38	.46	47.6	8.8
Withdrawal	72	−.28	−.31	−.27	−.30	−.41	−.44	−.36	−.37	.48	.56	.26	.34	.28	.34	46.8	9.6
Attention Problems	72	−.36	−.40	−.26	−.29	−.38	−.41	−.37	−.38	.39	.47	.43	.54	.48	.56	48.8	9.8
Adaptability	72	.21	.24	.25	.28	.34	.37	.29	.30	−.49	−.57	−.38	−.49	−.42	−.50	51.8	10.1
Social Skills	72	.34	.38	.30	.33	.39	**.42**	.41	.42	−.31	−.38	−.23	−.31	−.23	−.28	51.2	9.5
Leadership	72	.35	.39	.39	.43	.45	.48	.46	.47	−.30	−.37	−.15	−.20	−.22	−.27	52.5	9.5
Activities of Daily Living	72	.40	.44	.36	**.40**	.44	.47	.45	.46	−.43	−.51	−.40	−.51	−.49	−.57	51.9	9.5
Functional Communication	72	.40	**.44**	.35	.39	.48	.51	.45	.46	−.53	−.62	−.33	−.43	−.42	−.50	53.2	9.4
Vineland–II Mean	72	101.3		99.6		101.5		101.3		14.8		15.1		15.0			
Vineland–II *SD*	72	13.3		13.4		13.8		14.4		2.4		2.2		2.4			

Note: BASC–2 scores are *T* scores

[a] All correlations were corrected for restriction of range, based on the standard deviation obtained on the Vineland–II, using the variability correction of Cohen et al. (2003, p. 58).

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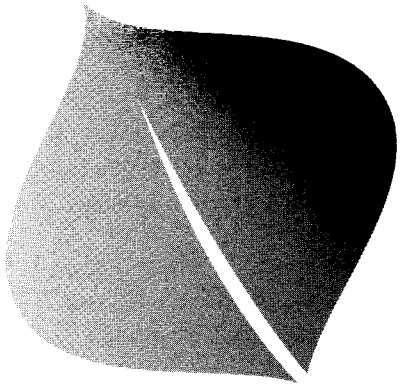

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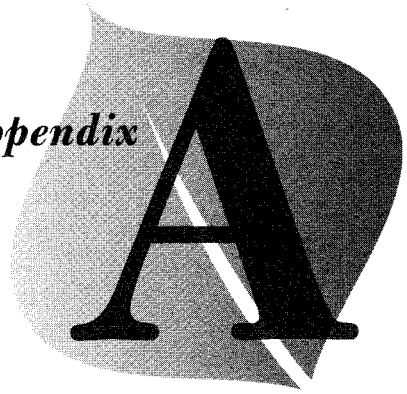

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Galen L. Downing
Raina Ilene Jones
Vickie Lindsay Macdonald
Sheryl Padjen
Cristine C. Sosa

VIRGINIA

Rita T. Bowers
Myra Beth Bundy
Sara L. Coleman
Susan Kassing Daly
Mary Jane DeSantis
Laura C. Early
Lynne Foote
Janice Furman
Lawren P. Gladen
Tara Haymore
Sharyn P. Hunt
K. Jackson-Small
Elaine S. King
E. Jill Lewis
Pamela Pisoni Moore
Debra M. Ostrowski
Kathryn W. Pentecost
Rosa Pereira-Bull
Laura A. Preston
Shannon Cassidy Reed
Haleh Royanian
Sharon S. Stodulski
Renée Toyer
Susan Brown Wallace
Jeanne Watson
Dianne M. White

WASHINGTON

Kathy Bohlen
Midge Crawford
Chris Halladay
Michael W. Kirlin
Alison R. Koth
Dawn F. Magden
Deborah Morton
Marilyn Cochran Mosley
Eric P. Nielsen
Hanna S. Nowakowski
Connie Jo Squires
Shannon Van Horn

WEST VIRGINIA

Debra A. Davis
Jill C. DeiCas
Susan Mullens
Stephanie A. Oberly

WISCONSIN

Kristina L. Scott
Tracie L. Wurm

Participating Facilities

NORTHEAST

CONNECTICUT

Wilby High School, Waterbury
Yale Child Study Center Infant and Children Follow-Up Project, New Haven

MAINE

Central Elementary School, North New Portland

MASSACHUSETTS

Boston University School of Medicine, Boston
Psychological Services, Inc., Braintree

NEW HAMPSHIRE

McDonough Elementary School, Manchester
Smyth Road Elementary School, Manchester
Sunrise Children's Center, Amherst

NEW JERSEY

Montclair State University, Montclair

NEW YORK

Canandaigua Academy, Canandaigua
Center for Family Development, Williamsville
Central Islip School District, Central Islip
Chazy Central Rural School, Morrisonville
Clyde-Savannah Central School District, Clyde
Dutchess County ARC Clinic, Poughkeepsie
Gowanda Middle School, Gowanda
Morris Central School, Morris
New York State School for the Deaf, Rome
Savannah Elementary School, Savannah
Westchester Exceptional Children's School, North Salem
Women's League Community Residences, Brooklyn
Yeshiva University, Bronx

PENNSYLVANIA

Chatham College, Pittsburgh
Indiana County Head Start, Indiana
Indiana University of Pennsylvania Department of Psychology, Indiana
Juniata Valley School District, Alexandria
Mifflin County School District, Lewistown
Montgomery County Head Start, Dresher
Purchase Line School District, Commodore
The Shawnee Academy, Ltd., Shawnee on Delaware

NORTH CENTRAL

ILLINOIS

Clark Elementary School, Waukegan
Crete-Monee School District 201-U, University Park
Crystal Lake Elementary School, Crystal Lake
Gillet Educational Center, Buffalo Grove
Granville Woods Mathematics and Science Academy, Chicago
Helping Others Cope, Country Club Hills
Hononegah High School, Rockton
Illinois School for the Deaf, Jacksonville
Larkin High School, Elgin
Rosemont Elementary School, Rosemont
Sarah Raymond School of Early Education, Bloomington
St. Sabina School, Chicago

INDIANA

Kingsway Christian School, Avon
Riley Child Development Center, Indianapolis

IOWA

Area Education Agency 13, Council Bluffs

KANSAS

Chase Grade School, Chase
Concordia Elementary School, Concordia
Concordia Middle School, Concordia
Learning Cooperative of North Central Kansas, Concordia
Leavenworth County Special Education Cooperative, Leavenworth
Northeast Elementary School, Pittsburg
Pawnee Mental Health Center, Concordia
Southeast Kansas Special Education Cooperative Interlocal No. 637, Pittsburg
Sterling Elementary School, Sterling
Tanglewood Elementary School, Derby
Westside Elementary School, Pittsburg

MICHIGAN

Berrien County Intermediate School District, Berrien Springs
Mason-Lake Intermediate School District, Ludington
Rockford Public Schools, Rockford

MINNESOTA

Centennial Middle School, Lino Lakes
Linwood Elementary School, Harris

MISSOURI

Fontbonne University, St. Louis
The Moog Center for Deaf Education, St. Louis
Special Services Cooperative of Jefferson County, Hillsboro

NEBRASKA

Developmental Services at Nebraska, Inc., Lincoln
Lanning Center for Behavioral Services, Hastings
North American Martyrs School, Lincoln
Sacred Heart School, Lincoln
St. John's School, Lincoln

NORTH DAKOTA

Lake Region Special Education, Devils Lake
Pride Manchester, Bismarck
Volk Human Services, Devils Lake

OHIO

Bellaire Local School District, Bellaire
Children's Diagnostic Center, Cincinnati
Cuyahoga County Board of Mental Retardation and Developmental Disabilities, Cleveland
East School Assistance Center, Toledo
Falls-Lenox Elementary School, Olmsted Falls
Franklin County Board of Mental Retardation/ Developmental Disability, Columbus
Harrison Elementary School, Hamilton
Lakeview Local Schools, Cortland
Olmsted Falls City Schools, Olmsted Falls
Sterling Morton Elementary School, Mentor

SOUTH DAKOTA

Estelline School, Estelline
Sinte Gleska University Sicangu GEAR UP Program, Mission

WISCONSIN

Valders Elementary School, Valders

SOUTH

ALABAMA

Clanton Intermediate School, Clanton
Jasper City Schools, Jasper
Madison City Schools, Madison

ARKANSAS

Forrester-Davis Development Center, Clarksville
Northeast Arkansas Educational Cooperative, Walnut Ridge
Psychological Care Center, Jonesboro

DISTRICT OF COLUMBIA

Kids Corner Bilingual Daycare Center, Washington
New Carver Terrace After-Care Program, Washington

FLORIDA

Bushnell Elementary School, Bushnell
Cannella Elementary School, Tampa
Hopper Center, Sanford
Miami Cerebral Palsy Residential Services, Inc., Miami
New Options and Lifestyles Development Center, Winter Park
Rainbow Diagnostic Services, Jacksonville
Tutor Time Learning Center, Fort Lauderdale

GEORGIA

Ausborn Behavioral Care, Decatur
Butts County Schools, Griffin
City Schools of Decatur, Decatur
Fort Valley State University, Fort Valley
Glenn Hills Elementary School, Augusta
Mitchell County Program for Exceptional Children, Camilla

KENTUCKY

Boyd County Public Schools, Ashland
Cawood Elementary School, Cawood
Chandler's Elementary School, Russellville
Cumberland Elementary School, Cumberland
Cumberland High School, Cumberland
Cumberland Junior High School, Cumberland
Evarts Elementary School, Evarts
Fort Thomas Independent Schools, Fort Thomas
La Petite Academy of Bowling Green, Bowling Green
Pike County School System, Pikeville
Rosspoint Elementary School, Baxter
Union County Public Schools, Morganfield
Wallins Elementary School, Wallins

LOUISIANA

South Louisiana Community College, Lafayette
YWCA Early Head Start of Greater Baton Rouge, Baton Rouge

MARYLAND

Calvert County Public Schools, Prince Frederick
Maree G. Farring Elementary School, Baltimore

MISSISSIPPI

Hudspeth Regional Center, Whitfield

NORTH CAROLINA

Gibson Psychological Services, Inc., Fayetteville
North Topsail Elementary School, Hampstead
Plaza Road Pre-Kindergarten Center, Charlotte
St. Patrick's Catholic School, Fayetteville

OKLAHOMA

Henryetta Public Schools, Henryetta

SOUTH CAROLINA

Christian Pathway: Starting Steps School, Lamar
Florence School District Four, Timmonsville

TENNESSEE

Erin Elementary School, Erin
Fairmont Elementary School, Johnson City
Hamilton County Department of Education Preschool Assessment and Learning Service (PALS) Program, Chattanooga
Mountain View Elementary School, Johnson City
Ridgeway Elementary School, Memphis
Shelby County Schools, Memphis
Tennessee School for the Blind, Memphis
Woodland Elementary School, Johnson City

TEXAS

Memorial Intermediate School, New Braunfels
Premier Academy, Roanoke
Westwind Elementary School, Lubbock

VIRGINIA

Appalachian Psychological Trauma Center, Hillsville
Bowling Green Elementary School, Bowling Green
Buckingham County Public Schools, Buckingham
Chesterfield County Public Schools, Richmond
Fairfax County Public Schools, Alexandria
Fluvanna County Public Schools, Palmyra

WEST

ARIZONA

Camp Verde Head Start, Camp Verde
Camp Verde Unified School District, Camp Verde
Cromer Elementary School, Flagstaff
Hohokam Middle School, Tucson
Melmed Center, Scottsdale
Orangedale Elementary School, Phoenix
Pueblo Elementary School, Scottsdale

CALIFORNIA

Brisbane School District, Brisbane
Cadwallader Elementary School, San Jose
California School for the Blind, Fremont
California School for the Deaf, Fremont
Caruthers Elementary School, Caruthers
Castaic Union School District, Castaic
Center for Autism and Related Disorders, Woodland Hills
Curtiss Middle School, Carson
Greenfield Union School District, Greenfield
Hacienda La Puente Unified School District, City of Industry
Hillgrove Child Development Center, Hacienda Heights
Kern County Superintendent of Schools, Bakersfield
Lake Elsinore Unified School District, Lake Elsinore
Millbrook Elementary School, San Jose
Mission Child Care Center, San Francisco
New Haven School, Manteca
San Altos Elementary School, Lemon Grove
San Lorenzo Middle School, King City
Santa Lucia Elementary School, King City
Tehipite Middle School, Fresno
Vacaville Unified School District, Vacaville
Willenberg Special Education Center, San Pedro

COLORADO

Centennial Elementary School, Colorado Springs
Jefferson County Public Schools, Golden
Marrama Elementary School, Denver
Monterey Elementary School, Colorado Springs
Oak Creek Elementary School, Colorado Springs
Stratmoor Hills Elementary School, Colorado Springs

HAWAII

Rainbow Diagnostic Services, Honolulu
State of Hawaii Department of Education Windward Oahu District, Kaneohe

IDAHO

Canyon-Owyhee School Service Agency (COSSA), Greenleaf
Fruitland School District, Boise

NEVADA

Families for Effective Autism Treatment (FEAT) of Southern Nevada, Las Vegas
Odyssey Charter School, Las Vegas
University of Nevada, Las Vegas/Consolidated Students of the University of Nevada (UNLV/CSUN) Preschool, Las Vegas

NEW MEXICO

Blanco Elementary School, Blanco
Bloomfield Family Learning Center, Bloomfield
Bloomfield High School, Bloomfield
Las Cruces Public Schools, Las Cruces
Mesa Alta Junior High School, Bloomfield
Naaba Ani Elementary School, Bloomfield

OREGON

Oregon School for the Deaf, Salem
Rogue Valley Adventist School, Medford

UTAH

Davis School District, Farmington
Doxey Elementary School, Sunset
E. G. King Elementary School, Layton
Lincoln Elementary School, Layton

WASHINGTON

Chester H. Thompson Elementary School, Tacoma
Crestwood Elementary School, Sumner
Wee Wildcats Preschool, Wenatchee

Subdomain and Domain Norms

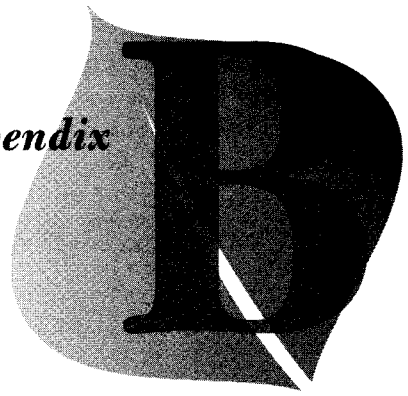

Table B.1 *v*-Scale Scores Corresponding to Subdomain Raw Scores 183

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0:1:0–0:1:30 183
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0:5:0–0:5:30 185
0:6:0–0:6:30 186
0:7:0–0:7:30 186

0:8:0–0:8:30 187
0:9:0–0:9:30 187
0:10:0–0:10:30 188
0:11:0–0:11:30 188

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1:1:0–1:1:30 189
1:2:0–1:2:30 190
1:3:0–1:3:30 190

1:4:0–1:4:30 191
1:5:0–1:5:30 191
1:6:0–1:6:30 192
1:7:0–1:7:30 192

1:8:0–1:8:30 193
1:9:0–1:9:30 193
1:10:0–1:10:30 194
1:11:0–1:11:30 194

2:0:0–2:1:30 195
2:2:0–2:3:30 195
2:4:0–2:5:30 196
2:6:0–2:7:30 196

2:8:0–2:9:30 197
2:10:0–2:11:30 197
3:0–3:1 198
3:2–3:3 198

3:4–3:5 199
3:6–3:7 199
3:8–3:9 200
3:10–3:11 200

4:0–4:1 201
4:2–4:3 201
4:4–4:5 202
4:6–4:7 202

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4:10–4:11 203
5:0–5:1 204
5:2–5:3 204

5:4–5:5 205
5:6–5:7 205
5:8–5:9 206
5:10–5:11 206

6:0–6:2 207
6:3–6:5 207
6:6–6:8 208
6:9–6:11 208

7:0–7:2 209
7:3–7:5 209
7:6–7:8 210
7:9–7:11 210

8:0–8:2 211
8:3–8:5 211
8:6–8:8 212
8:9–8:11 212

9:0–9:3 213
9:4–9:7 213
9:8–9:11 214
10:0–10:3 214

10:4–10:7 215
10:8–10:11 215
11:0–11:3 216
11:4–11:7 216

11:8–11:11 217
12:0–12:3 217
12:4–12:7 218
12:8–12:11 218

Table B.1 *v*-Scale Scores Corresponding to Subdomain Raw Scores *continued* 183

13:0–13:5 219
13:6–13:11 219
14:0–14:5 220
14:6–14:11 220
15:0–15:5 221
15:6–15:11 221
16:0–16:5 222
16:6–16:11 222
17:0–17:5 223
17:6–17:11 223
18:0–18:5 224
18:6–18:11 224
19:0–21:11 225
22:0–29:11 225
30:0–39:11 226
40:0–49:11 226
50:0–54:11 227
55:0–59:11 227
60:0–64:11 228
65:0–69:11 228
70:0–79:11 229
80:0–90:11 229

Table B.2 Standard Scores Corresponding to Sums of Subdomain *v*-Scale Scores and Sums of Domain Standard Scores 230

0:0:0–0:11:30 230
1:0–1:11 231
2:0–2:11 232
3:0–6:11 233
7:0–9:11 234
10:0–10:11 235
11:0–11:11 236
12:0–12:11 237
13:0–13:11 238
14:0–14:11 239
15:0–15:11 240
16:0–17:11 241
18:0–21:11 242
22:0–49:11 243
50:0–54:11 244
55:0–69:11 245
70:0–90:11 246

Table B.3 *v*-Scale Scores Corresponding to Maladaptive Behavior Subscale and Index Raw Scores 247

Table B.1: *v*-Scale Scores Corresponding to Subdomain Raw Scores

0:0:0–0:0:30

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		*v*-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	8–40	12–108	—	5–82	—	—	21–76	9–62	—	5–80	5–72	24
23	—	—	—	4	—	—	—	8	—	—	3–4	23
22	—	10–11	—	—	—	—	20	7	—	—	2	22
21	7	9	—	3	—	—	19	5–6	—	—	—	21
20	—	—	—	—	—	—	18	—	—	—	1	20
19	6	—	—	—	—	—	13–17	—	—	4	—	19
18	—	7–8	—	—	—	—	11–12	3–4	—	3	—	18
17	5	5–6	—	—	—	—	9–10	—	—	—	—	17
16	4	4	—	2	—	—	7–8	—	—	2	0	16
15	3	—	—	—	—	—	5–6	2	—	1	—	15
14	—	—	—	—	—	—	4	—	—	0	—	14
13	2	3	—	—	—	—	—	1	—	—	—	13
12	—	2	—	1	—	—	3	—	—	—	—	12
11	1	—	—	—	—	—	—	0	—	—	—	11
10	—	—	—	—	—	—	—	—	—	—	—	10
9	—	1	—	0	—	—	2	—	—	—	—	9
8	—	—	—	—	—	—	1	—	—	—	—	8
7	—	—	—	—	—	—	—	—	—	—	—	7
6	0	0	—	—	—	—	0	—	—	—	—	6
5	—	—	—	—	—	—	—	—	—	—	—	5
4	—	—	—	—	—	—	—	—	—	—	—	4
3	—	—	—	—	—	—	—	—	—	—	—	3
2	—	—	—	—	—	—	—	—	—	—	—	2
1	—	—	—	—	—	—	—	—	—	—	—	1
90% Conf. Int.	2	1	—	2	—	—	2	2	—	1	2	90% Conf. Int.

0:1:0–0:1:30

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		*v*-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	8–40	12–108	—	5–82	—	—	21–76	9–62	—	6–80	6–72	24
23	—	—	—	—	—	—	—	—	—	—	—	23
22	—	—	—	4	—	—	—	8	—	5	5	22
21	—	11	—	—	—	—	20	7	—	—	3–4	21
20	7	10	—	—	—	—	19	6	—	—	2	20
19	—	9	—	3	—	—	18	5	—	—	—	19
18	6	—	—	—	—	—	16–17	—	—	—	1	18
17	—	8	—	—	—	—	13–15	4	—	3–4	—	17
16	5	6–7	—	—	—	—	11–12	3	—	—	—	16
15	—	5	—	2	—	—	7–10	—	—	2	0	15
14	3–4	4	—	—	—	—	5–6	2	—	1	—	14
13	—	—	—	—	—	—	—	—	—	—	—	13
12	2	3	—	—	—	—	4	1	—	0	—	12
11	—	2	—	1	—	—	—	—	—	—	—	11
10	—	—	—	—	—	—	3	0	—	—	—	10
9	1	—	—	—	—	—	—	—	—	—	—	9
8	—	1	—	0	—	—	2	—	—	—	—	8
7	—	—	—	—	—	—	1	—	—	—	—	7
6	0	0	—	—	—	—	0	—	—	—	—	6
5	—	—	—	—	—	—	—	—	—	—	—	5
4	—	—	—	—	—	—	—	—	—	—	—	4
3	—	—	—	—	—	—	—	—	—	—	—	3
2	—	—	—	—	—	—	—	—	—	—	—	2
1	—	—	—	—	—	—	—	—	—	—	—	1
90% Conf. Int.	2	1	—	2	—	—	2	2	—	1	2	90% Conf. Int.

continued on next page

SUBDOMAIN *v*-Scale Scores

0:2:0–0:2:30

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		*v*-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	8–40	16–108	—	10–82	—	—	25–76	10–62	—	16–80	11–72	24
23	—	12–15	—	6–9	—	—	21–24	9	—	8–15	8–10	23
22	—	—	—	5	—	—	—	8	—	6–7	6–7	22
21	—	—	—	—	—	—	—	—	—	—	—	21
20	—	11	—	4	—	—	20	7	—	5	5	20
19	7	10	—	—	—	—	18–19	6	—	—	3–4	19
18	6	9	—	3	—	—	17	5	—	—	2	18
17	—	—	—	—	—	—	15–16	—	—	—	—	17
16	—	8	—	—	—	—	13–14	4	—	4	1	16
15	5	7	—	—	—	—	11–12	3	—	3	—	15
14	—	6	—	2	—	—	9–10	—	—	—	—	14
13	4	5	—	—	—	—	7–8	2	—	2	0	13
12	3	4	—	—	—	—	5–6	—	—	1	—	12
11	—	—	—	1	—	—	4	1	—	—	—	11
10	2	3	—	—	—	—	—	0	—	0	—	10
9	—	2	—	—	—	—	3	—	—	—	—	9
8	1	—	—	0	—	—	—	—	—	—	—	8
7	—	1	—	—	—	—	1–2	—	—	—	—	7
6	0	0	—	—	—	—	0	—	—	—	—	6
5	—	—	—	—	—	—	—	—	—	—	—	5
4	—	—	—	—	—	—	—	—	—	—	—	4
3	—	—	—	—	—	—	—	—	—	—	—	3
2	—	—	—	—	—	—	—	—	—	—	—	2
1	—	—	—	—	—	—	—	—	—	—	—	1
90% Conf. Int.	2	1	—	2	—	—	2	2	—	1	2	90% Conf. Int.

0:3:0–0:3:30

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		*v*-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	12–40	17–108	—	10–82	—	—	25–76	10–62	—	17–80	11–72	24
23	—	15–16	—	—	—	—	24	9	—	14–16	—	23
22	11	14	—	9	—	—	23	—	—	12–13	10	22
21	8–10	12–13	—	6–8	—	—	21–22	8	—	8–11	8–9	21
20	—	11	—	5	—	—	20	7	—	7	7	20
19	7	—	—	—	—	—	19	6	—	6	6	19
18	—	10	—	4	—	—	18	—	—	5	5	18
17	6	9	—	3	—	—	16–17	5	—	—	3–4	17
16	—	8	—	—	—	—	14–15	4	—	—	2	16
15	5	—	—	—	—	—	12–13	—	—	4	—	15
14	—	7	—	2	—	—	11	3	—	—	1	14
13	—	—	—	—	—	—	9–10	2	—	3	—	13
12	4	6	—	—	—	—	8	—	—	—	—	12
11	—	5	—	—	—	—	6–7	1	—	2	0	11
10	3	4	—	1	—	—	4–5	—	—	1	—	10
9	—	—	—	—	—	—	—	0	—	—	—	9
8	2	3	—	—	—	—	3	—	—	0	—	8
7	1	1–2	—	0	—	—	2	—	—	—	—	7
6	0	0	—	—	—	—	1	—	—	—	—	6
5	—	—	—	—	—	—	0	—	—	—	—	5
4	—	—	—	—	—	—	—	—	—	—	—	4
3	—	—	—	—	—	—	—	—	—	—	—	3
2	—	—	—	—	—	—	—	—	—	—	—	2
1	—	—	—	—	—	—	—	—	—	—	—	1
90% Conf. Int.	2	1	—	2	—	—	2	2	—	1	2	90% Conf. Int.

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0:4:0–0:4:30

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		v-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	14–40	17–108	—	10–82	—	—	25–76	10–62	—	17–80	11–72	24
23	—	16	—	—	—	—	—	—	—	16	—	23
22	—	15	—	—	—	—	24	9	—	14–15	—	22
21	11–13	14	—	9	—	—	23	8	—	12–13	10	21
20	9–10	12–13	—	8	—	—	21–22	—	—	10–11	9	20
19	8	11	—	6–7	—	—	20	7	—	8–9	8	19
18	7	—	—	5	—	—	18–19	6	—	7	7	18
17	6	10	—	4	—	—	17	—	—	6	6	17
16	—	9	—	3	—	—	15–16	5	—	5	5	16
15	—	8	—	—	—	—	14	4	—	—	3–4	15
14	5	—	—	—	—	—	12–13	—	—	4	2	14
13	—	7	—	2	—	—	11	3	—	—	—	13
12	—	—	—	—	—	—	9–10	2	—	3	1	12
11	4	6	—	—	—	—	8	—	—	—	—	11
10	—	—	—	1	—	—	6–7	1	—	2	0	10
9	3	5	—	—	—	—	4–5	0	—	1	—	9
8	—	4	—	—	—	—	—	—	—	—	—	8
7	2	3	—	0	—	—	3	—	—	—	—	7
6	1	2	—	—	—	—	2	—	—	0	—	6
5	0	1	—	—	—	—	1	—	—	—	—	5
4	—	0	—	—	—	—	0	—	—	—	—	4
3	—	—	—	—	—	—	—	—	—	—	—	3
2	—	—	—	—	—	—	—	—	—	—	—	2
1	—	—	—	—	—	—	—	—	—	—	—	1
90% Conf. Int.	2	1	—	2	—	—	2	2	—	1	2	90% Conf. Int.

0:5:0–0:5:30

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		v-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	16–40	26–108	—	19–82	—	—	30–76	23–62	—	20–80	22–72	24
23	15	22–25	—	13–18	—	—	27–29	15–22	—	—	17–21	23
22	—	17–21	—	10–12	—	—	25–26	10–14	—	18–19	14–16	22
21	12–14	16	—	—	—	—	—	—	—	16–17	11–13	21
20	10–11	14–15	—	9	—	—	23–24	8–9	—	14–15	—	20
19	9	12–13	—	8	—	—	22	—	—	12–13	10	19
18	8	11	—	6–7	—	—	20–21	7	—	10–11	9	18
17	7	—	—	5	—	—	19	6	—	8–9	8	17
16	6	10	—	—	—	—	17–18	—	—	7	7	16
15	—	9	—	4	—	—	15–16	5	—	6	6	15
14	—	8	—	3	—	—	14	4	—	5	5	14
13	5	—	—	—	—	—	12–13	—	—	4	3–4	13
12	—	7	—	2	—	—	11	3	—	—	2	12
11	—	—	—	—	—	—	9–10	2	—	3	1	11
10	4	6	—	—	—	—	8	—	—	—	—	10
9	—	5	—	1	—	—	6–7	1	—	2	0	9
8	3	4	—	—	—	—	4–5	0	—	1	—	8
7	2	3	—	0	—	—	3	—	—	—	—	7
6	1	2	—	—	—	—	2	—	—	0	—	6
5	0	1	—	—	—	—	1	—	—	—	—	5
4	—	0	—	—	—	—	0	—	—	—	—	4
3	—	—	—	—	—	—	—	—	—	—	—	3
2	—	—	—	—	—	—	—	—	—	—	—	2
1	—	—	—	—	—	—	—	—	—	—	—	1
90% Conf. Int.	2	1	—	2	—	—	2	2	—	1	2	90% Conf. Int.

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SUBDOMAIN *v*-Scale Scores

0:6:0–0:6:30

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		*v*-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	20–40	33–108	—	19–82	—	—	31–76	23–62	—	24–80	22–72	24
23	—	31–32	—	16–18	—	—	29–30	20–22	—	—	20–21	23
22	17–19	26–30	—	15	—	—	28	18–19	—	—	18–19	22
21	14–16	18–25	—	11–14	—	—	26–27	12–17	—	22–23	16–17	21
20	11–13	16–17	—	10	—	—	25	10–11	—	18–21	14–15	20
19	9–10	15	—	9	—	—	24	9	—	15–17	11–13	19
18	8	13–14	—	8	—	—	23	8	—	13–14	—	18
17	7	12	—	7	—	—	21–22	7	—	11–12	10	17
16	—	11	—	6	—	—	20	6	—	9–10	9	16
15	6	10	—	5	—	—	18–19	5	—	8	8	15
14	—	9	—	4	—	—	17	—	—	6–7	6–7	14
13	—	—	—	3	—	—	15–16	4	—	5	5	13
12	5	8	—	—	—	—	13–14	—	—	—	4	12
11	—	7	—	2	—	—	12	3	—	4	2–3	11
10	4	6	—	—	—	—	10–11	2	—	3	—	10
9	—	—	—	1	—	—	8–9	1	—	2	1	9
8	3	5	—	—	—	—	6–7	0	—	1	0	8
7	—	4	—	—	—	—	4–5	—	—	—	—	7
6	2	3	—	0	—	—	2–3	—	—	0	—	6
5	1	2	—	—	—	—	1	—	—	—	—	5
4	—	1	—	—	—	—	0	—	—	—	—	4
3	0	0	—	—	—	—	—	—	—	—	—	3
2	—	—	—	—	—	—	—	—	—	—	—	2
1	—	—	—	—	—	—	—	—	—	—	—	1
90% Conf. Int.	2	1	—	2	—	—	2	2	—	1	2	90% Conf. Int.

0:7:0–0:7:30

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		*v*-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	23–40	33–108	—	19–82	—	—	31–76	23–62	—	39–80	22–72	24
23	—	—	—	—	—	—	30	—	—	35–38	—	23
22	—	31–32	—	16–18	—	—	29	20–22	—	33–34	20–21	22
21	17–22	26–30	—	15	—	—	28	18–19	—	24–32	18–19	21
20	12–16	22–25	—	13–14	—	—	27	15–17	—	—	17	20
19	10–11	18–21	—	11–12	—	—	26	12–14	—	22–23	16	19
18	9	16–17	—	9–10	—	—	25	10–11	—	18–21	14–15	18
17	8	13–15	—	8	—	—	23–24	8–9	—	15–17	12–13	17
16	7	12	—	7	—	—	22	7	—	13–14	11	16
15	—	11	—	6	—	—	20–21	6	—	11–12	10	15
14	6	10	—	5	—	—	19	5	—	9–10	9	14
13	—	9	—	—	—	—	17–18	—	—	8	8	13
12	—	—	—	4	—	—	15–16	4	—	6–7	6–7	12
11	5	8	—	3	—	—	13–14	—	—	5	5	11
10	—	7	—	2	—	—	12	3	—	4	4	10
9	4	6	—	—	—	—	10–11	2	—	3	2–3	9
8	—	5	—	1	—	—	8–9	1	—	2	1	8
7	3	4	—	—	—	—	6–7	0	—	1	0	7
6	2	3	—	0	—	—	4–5	—	—	0	—	6
5	1	2	—	—	—	—	2–3	—	—	—	—	5
4	—	1	—	—	—	—	0–1	—	—	—	—	4
3	0	0	—	—	—	—	—	—	—	—	—	3
2	—	—	—	—	—	—	—	—	—	—	—	2
1	—	—	—	—	—	—	—	—	—	—	—	1
90% Conf. Int.	2	1	—	2	—	—	2	2	—	1	2	90% Conf. Int.

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0:8:0–0:8:30

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		v-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	23–40	35–108	—	24–82	—	—	33–76	27–62	—	49–80	25–72	24
23	—	33–34	—	19–23	—	—	31–32	23–26	—	39–48	22–24	23
22	—	31–32	—	—	—	—	30	22	—	—	20–21	22
21	17–22	26–30	—	16–18	—	—	29	20–21	—	37–38	18–19	21
20	15–16	22–25	—	15	—	—	28	18–19	—	33–36	17	20
19	12–14	21	—	13–14	—	—	27	15–17	—	27–32	—	19
18	10–11	18–20	—	11–12	—	—	26	12–14	—	22–26	16	18
17	9	16–17	—	9–10	—	—	25	10–11	—	18–21	14–15	17
16	8	14–15	—	8	—	—	23–24	8–9	—	17	12–13	16
15	7	12–13	—	7	—	—	22	7	—	15–16	11	15
14	—	11	—	6	—	—	20–21	6	—	13–14	10	14
13	6	10	—	5	—	—	19	5	—	11–12	9	13
12	—	9	—	—	—	—	17–18	—	—	8–10	8	12
11	—	—	—	4	—	—	15–16	4	—	7	6–7	11
10	5	8	—	2–3	—	—	13–14	3	—	5–6	5	10
9	4	7	—	—	—	—	10–12	2	—	4	4	9
8	—	6	—	—	—	—	8–9	1	—	3	2–3	8
7	3	4–5	—	1	—	—	6–7	0	—	1–2	0–1	7
6	2	3	—	0	—	—	4–5	—	—	0	—	6
5	1	2	—	—	—	—	2–3	—	—	—	—	5
4	—	1	—	—	—	—	0–1	—	—	—	—	4
3	0	0	—	—	—	—	—	—	—	—	—	3
2	—	—	—	—	—	—	—	—	—	—	—	2
1	—	—	—	—	—	—	—	—	—	—	—	1
90% Conf. Int.	2	1	—	2	—	—	2	2	—	1	2	90% Conf. Int.

0:9:0–0:9:30

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		v-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	23–40	35–108	—	25–82	—	—	33–76	27–62	—	52–80	25–72	24
23	—	33–34	—	21–24	—	—	31–32	24–26	—	45–51	22–24	23
22	—	31–32	—	19–20	—	—	30	23	—	41–44	—	22
21	20–22	27–30	—	16–18	—	—	29	20–22	—	39–40	19–21	21
20	17–19	25–26	—	15	—	—	28	18–19	—	33–38	18	20
19	13–16	22–24	—	13–14	—	—	27	16–17	—	30–32	17	19
18	12	19–21	—	12	—	—	26	14–15	—	26–29	16	18
17	10–11	18	—	10–11	—	—	25	12–13	—	23–25	15	17
16	9	17	—	9	—	—	24	10–11	—	21–22	14	16
15	8	16	—	8	—	—	23	8–9	—	18–20	13	15
14	—	13–15	—	7	—	—	21–22	7	—	15–17	12	14
13	7	12	—	6	—	—	20	6	—	14	11	13
12	—	11	—	—	—	—	18–19	5	—	11–13	10	12
11	6	10	—	4–5	—	—	15–17	4	—	9–10	9	11
10	5	9	—	3	—	—	13–14	3	—	8	7–8	10
9	—	8	—	2	—	—	12	2	—	6–7	4–6	9
8	4	7	—	—	—	—	10–11	1	—	5	2–3	8
7	3	5–6	—	1	—	—	8–9	0	—	2–4	1	7
6	2	4	—	0	—	—	7	—	—	0–1	0	6
5	1	2–3	—	—	—	—	5–6	—	—	—	—	5
4	—	1	—	—	—	—	3–4	—	—	—	—	4
3	0	0	—	—	—	—	1–2	—	—	—	—	3
2	—	—	—	—	—	—	0	—	—	—	—	2
1	—	—	—	—	—	—	—	—	—	—	—	1
90% Conf. Int.	2	1	—	2	—	—	2	2	—	1	2	90% Conf. Int.

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SUBDOMAIN *v*-Scale Scores

0:10:0–0:10:30

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		*v*-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	24–40	35–108	—	25–82	—	—	33–76	27–62	—	52–80	25–72	24
23	—	—	—	24	—	—	—	—	—	49–51	—	23
22	—	31–34	—	21–23	—	—	31–32	24–26	—	45–48	22–24	22
21	20–23	27–30	—	19–20	—	—	30	22–23	—	41–44	19–21	21
20	17–19	25–26	—	16–18	—	—	29	20–21	—	37–40	18	20
19	15–16	22–24	—	15	—	—	28	18–19	—	33–36	17	19
18	13–14	21	—	13–14	—	—	27	16–17	—	30–32	—	18
17	12	19–20	—	12	—	—	26	14–15	—	26–29	16	17
16	10–11	18	—	10–11	—	—	25	12–13	—	23–25	15	16
15	9	17	—	9	—	—	24	10–11	—	21–22	14	15
14	8	16	—	8	—	—	23	8–9	—	18–20	13	14
13	—	14–15	—	7	—	—	21–22	7	—	17	12	13
12	7	12–13	—	6	—	—	20	6	—	15–16	11	12
11	—	11	—	—	—	—	18–19	5	—	14	10	11
10	6	10	—	4–5	—	—	15–17	3–4	—	11–13	9	10
9	5	9	—	2–3	—	—	13–14	2	—	8–10	7–8	9
8	4	8	—	—	—	—	10–12	1	—	7	4–6	8
7	3	7	—	—	—	—	8–9	0	—	5–6	2–3	7
6	2	6	—	1	—	—	7	—	—	3–4	0–1	6
5	1	5	—	0	—	—	5–6	—	—	1–2	—	5
4	—	4	—	—	—	—	3–4	—	—	0	—	4
3	0	3	—	—	—	—	1–2	—	—	—	—	3
2	—	1–2	—	—	—	—	0	—	—	—	—	2
1	—	0	—	—	—	—	—	—	—	—	—	1
90% Conf. Int.	2	1	—	2	—	—	2	2	—	1	2	90% Conf. Int.

0:11:0–0:11:30

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		*v*-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	24–40	38–108	—	38–82	—	—	44–76	31–62	—	65–80	30–72	24
23	—	35–37	—	25–37	—	—	33–43	27–30	—	52–64	25–29	23
22	—	—	—	24	—	—	—	26	—	49–51	—	22
21	23	31–34	—	21–23	—	—	31–32	24–25	—	45–48	22–24	21
20	20–22	27–30	—	19–20	—	—	30	21–23	—	41–44	19–21	20
19	17–19	25–26	—	16–18	—	—	29	19–20	—	37–40	18	19
18	15–16	22–24	—	15	—	—	28	16–18	—	33–36	17	18
17	13–14	21	—	13–14	—	—	26–27	14–15	—	30–32	16	17
16	12	19–20	—	11–12	—	—	25	12–13	—	26–29	15	16
15	10–11	18	—	10	—	—	24	10–11	—	23–25	14	15
14	8–9	16–17	—	8–9	—	—	23	8–9	—	21–22	13	14
13	—	14–15	—	7	—	—	21–22	7	—	18–20	12	13
12	7	12–13	—	6	—	—	20	6	—	17	11	12
11	—	11	—	—	—	—	18–19	5	—	14–16	10	11
10	6	10	—	4–5	—	—	15–17	3–4	—	11–13	9	10
9	5	9	—	2–3	—	—	13–14	2	—	8–10	7–8	9
8	4	8	—	—	—	—	10–12	1	—	7	4–6	8
7	3	7	—	—	—	—	8–9	0	—	5–6	2–3	7
6	2	6	—	1	—	—	7	—	—	3–4	0–1	6
5	1	5	—	0	—	—	5–6	—	—	1–2	—	5
4	—	4	—	—	—	—	3–4	—	—	0	—	4
3	0	3	—	—	—	—	1–2	—	—	—	—	3
2	—	1–2	—	—	—	—	0	—	—	—	—	2
1	—	0	—	—	—	—	—	—	—	—	—	1
90% Conf. Int.	2	1	—	2	—	—	2	2	—	1	2	90% Conf. Int.

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1:0:0–1:0:30

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		v-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	26–40	47–108	—	48–82	15–48	14–88	53–76	36–62	24–60	73–80	34–72	24
23	—	43–46	—	29–47	13–14	12–13	38–52	27–35	21–23	58–72	26–33	23
22	—	35–42	—	25–28	11–12	10–11	33–37	—	18–20	52–57	25	22
21	24–25	34	—	21–24	7–10	8–9	—	24–26	15–17	49–51	22–24	21
20	21–23	30–33	—	19–20	—	7	31–32	22–23	12–14	45–48	19–21	20
19	18–20	27–29	—	16–18	6	—	29–30	20–21	—	41–44	18	19
18	16–17	23–26	—	15	5	6	28	18–19	10–11	37–40	17	18
17	13–15	21–22	—	13–14	4	5	27	16–17	7–9	33–36	—	17
16	12	19–20	—	12	3	4	26	14–15	6	30–32	16	16
15	10–11	18	—	10–11	2	—	25	12–13	5	26–29	15	15
14	9	17	—	9	1	3	24	10–11	4	22–25	13–14	14
13	8	16	—	8	0	—	22–23	8–9	3	18–21	12	13
12	—	14–15	—	7	—	2	20–21	7	—	17	11	12
11	7	12–13	—	6	—	1	18–19	5–6	2	15–16	10	11
10	6	11	—	—	—	0	15–17	3–4	1	14	9	10
9	5	10	—	4–5	—	—	13–14	2	0	11–13	7–8	9
8	4	8–9	—	2–3	—	—	10–12	1	—	7–10	4–6	8
7	3	7	—	—	—	—	8–9	0	—	5–6	2–3	7
6	2	6	—	1	—	—	7	—	—	3–4	0–1	6
5	1	5	—	0	—	—	5–6	—	—	1–2	—	5
4	—	4	—	—	—	—	3–4	—	—	0	—	4
3	0	3	—	—	—	—	1–2	—	—	—	—	3
2	—	1–2	—	—	—	—	0	—	—	—	—	2
1	—	0	—	—	—	—	—	—	—	—	—	1
90% Conf. Int.	2	1	—	2	2	3	2	2	3	1	2	90% Conf. Int.

1:1:0–1:1:30

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		v-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	30–40	58–108	—	48–82	15–48	14–88	53–76	36–62	24–60	73–80	34–72	24
23	29	54–57	—	38–47	13–14	12–13	44–52	31–35	21–23	65–72	30–33	23
22	27–28	38–53	—	25–37	11–12	10–11	35–43	27–30	18–20	55–64	25–29	22
21	24–26	35–37	—	24	7–10	8–9	33–34	26	15–17	51–54	—	21
20	22–23	31–34	—	21–23	—	7	31–32	24–25	12–14	47–50	22–24	20
19	20–21	27–30	—	19–20	6	—	30	21–23	—	44–46	19–21	19
18	17–19	25–26	—	16–18	5	6	29	19–20	10–11	40–43	18	18
17	15–16	22–24	—	15	4	5	28	16–18	7–9	36–39	17	17
16	13–14	21	—	13–14	3	4	26–27	14–15	6	32–35	16	16
15	12	19–20	—	11–12	2	—	25	12–13	5	27–31	15	15
14	10–11	18	—	10	1	3	24	10–11	4	23–26	13–14	14
13	8–9	16–17	—	8–9	0	—	22–23	8–9	3	21–22	12	13
12	—	14–15	—	7	—	2	20–21	7	—	18–20	11	12
11	7	12–13	—	6	—	1	18–19	5–6	2	17	10	11
10	6	11	—	—	—	0	15–17	3–4	1	14–16	9	10
9	5	10	—	4–5	—	—	13–14	2	0	11–13	7–8	9
8	4	8–9	—	2–3	—	—	10–12	1	—	7–10	4–6	8
7	3	7	—	—	—	—	8–9	0	—	5–6	2–3	7
6	2	6	—	1	—	—	7	—	—	3–4	0–1	6
5	1	5	—	0	—	—	5–6	—	—	1–2	—	5
4	—	4	—	—	—	—	3–4	—	—	0	—	4
3	0	3	—	—	—	—	1–2	—	—	—	—	3
2	—	1–2	—	—	—	—	0	—	—	—	—	2
1	—	0	—	—	—	—	—	—	—	—	—	1
90% Conf. Int.	2	1	—	2	2	3	2	2	3	1	2	90% Conf. Int.

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SUBDOMAIN v-Scale Scores

1:2:0–1:2:30

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		v-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	33–40	64–108	—	53–82	15–48	17–88	53–76	38–62	27–60	77–80	37–72	24
23	31–32	60–63	—	43–52	13–14	14–16	48–52	34–37	24–26	69–76	32–36	23
22	29–30	48–59	—	33–42	11–12	12–13	41–47	29–33	21–23	62–68	28–31	22
21	—	38–47	—	25–32	9–10	10–11	35–40	27–28	18–20	55–61	25–27	21
20	26–28	35–37	—	24	7–8	8–9	33–34	24–26	15–17	51–54	24	20
19	24–25	31–34	—	21–23	6	7	31–32	22–23	12–14	47–50	21–23	19
18	20–23	27–30	—	18–20	5	6	30	20–21	10–11	44–46	19–20	18
17	17–19	25–26	—	16–17	4	5	29	18–19	7–9	40–43	17–18	17
16	15–16	22–24	—	13–15	3	4	27–28	16–17	6	36–39	—	16
15	13–14	20–21	—	12	2	—	26	14–15	5	32–35	15–16	15
14	10–12	18–19	—	10–11	1	3	24–25	12–13	4	27–31	14	14
13	9	17	—	9	0	—	23	9–11	3	23–26	13	13
12	8	15–16	—	8	—	2	21–22	7–8	—	21–22	12	12
11	7	13–14	—	7	—	1	19–20	6	2	17–20	11	11
10	—	11–12	—	6	—	0	17–18	5	1	15–16	10	10
9	6	10	—	4–5	—	—	14–16	3–4	0	11–14	9	9
8	5	9	—	3	—	—	11–13	2	—	8–10	6–8	8
7	4	8	—	2	—	—	9–10	0–1	—	6–7	3–5	7
6	3	7	—	1	—	—	7–8	—	—	4–5	1–2	6
5	2	6	—	0	—	—	5–6	—	—	1–3	0	5
4	1	5	—	—	—	—	3–4	—	—	0	—	4
3	0	4	—	—	—	—	1–2	—	—	—	—	3
2	—	2–3	—	—	—	—	0	—	—	—	—	2
1	—	0–1	—	—	—	—	—	—	—	—	—	1
90% Conf. Int.	2	1	—	2	2	3	2	2	3	1	2	90% Conf. Int.

1:3:0–1:3:30

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		v-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	33–40	66–108	—	53–82	17–48	17–88	53–76	38–62	27–60	77–80	37–72	24
23	31–32	60–65	—	43–52	13–16	14–16	48–52	34–37	24–26	69–76	32–36	23
22	30	54–59	—	38–42	11–12	12–13	44–47	31–33	21–23	65–68	30–31	22
21	29	43–53	—	29–37	9–10	10–11	38–43	27–30	18–20	58–64	26–29	21
20	28	38–42	—	25–28	7–8	8–9	35–37	26	15–17	55–57	25	20
19	24–27	34–37	—	21–24	6	7	33–34	24–25	12–14	51–54	22–24	19
18	21–23	30–33	—	19–20	5	6	31–32	21–23	10–11	47–50	19–21	18
17	18–20	27–29	—	16–18	4	5	29–30	19–20	7–9	44–46	18	17
16	16–17	23–26	—	15	3	4	28	16–18	6	40–43	17	16
15	13–15	21–22	—	13–14	2	—	26–27	14–15	—	36–39	15–16	15
14	12	19–20	—	11–12	1	—	24–25	12–13	5	32–35	14	14
13	10–11	18	—	10	0	3	23	9–11	4	27–31	13	13
12	8–9	15–17	—	8–9	—	2	21–22	7–8	3	22–26	12	12
11	7	13–14	—	7	—	1	19–20	6	2	18–21	11	11
10	—	11–12	—	6	—	0	17–18	5	1	17	10	10
9	6	10	—	4–5	—	—	14–16	3–4	0	11–16	9	9
8	5	9	—	3	—	—	11–13	2	—	8–10	6–8	8
7	4	8	—	2	—	—	9–10	0–1	—	6–7	3–5	7
6	3	7	—	1	—	—	7–8	—	—	4–5	1–2	6
5	2	6	—	0	—	—	5–6	—	—	1–3	0	5
4	1	5	—	—	—	—	3–4	—	—	0	—	4
3	0	4	—	—	—	—	1–2	—	—	—	—	3
2	—	2–3	—	—	—	—	0	—	—	—	—	2
1	—	0–1	—	—	—	—	—	—	—	—	—	1
90% Conf. Int.	2	1	—	2	2	3	2	2	3	1	2	90% Conf. Int.

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1:4:0–1:4:30

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		v-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	33–40	74–108	—	53–82	17–48	17–88	53–76	38–62	27–60	77–80	37–72	24
23	32	67–73	—	48–52	15–16	14–16	—	36–37	24–26	73–76	34–36	23
22	30–31	54–66	—	38–47	13–14	12–13	44–52	31–35	21–23	65–72	30–33	22
21	29	48–53	—	33–37	11–12	10–11	41–43	29–30	18–20	62–64	28–29	21
20	28	43–47	—	29–32	7–10	8–9	38–40	26–28	15–17	58–61	26–27	20
19	26–27	38–42	—	25–28	—	7	35–37	24–25	12–14	55–57	24–25	19
18	24–25	34–37	—	21–24	6	—	33–34	21–23	—	51–54	21–23	18
17	21–23	30–33	—	18–20	5	6	31–32	19–20	10–11	47–50	19–20	17
16	18–20	27–29	—	16–17	4	5	29–30	16–18	7–9	44–46	17–18	16
15	16–17	23–26	—	13–15	3	4	26–28	14–15	6	40–43	16	15
14	13–15	20–22	—	11–12	2	—	25	12–13	5	36–39	15	14
13	10–12	18–19	—	10	1	3	24	10–11	4	32–35	13–14	13
12	8–9	16–17	—	8–9	0	2	22–23	8–9	3	27–31	12	12
11	—	14–15	—	7	—	1	19–21	7	2	22–26	11	11
10	7	12–13	—	6	—	0	17–18	5–6	1	17–21	10	10
9	6	11	—	—	—	—	14–16	3–4	0	14–16	9	9
8	5	10	—	4–5	—	—	11–13	2	—	11–13	6–8	8
7	4	8–9	—	2–3	—	—	9–10	0–1	—	6–10	3–5	7
6	3	7	—	1	—	—	7–8	—	—	4–5	1–2	6
5	2	6	—	0	—	—	5–6	—	—	1–3	0	5
4	1	5	—	—	—	—	3–4	—	—	0	—	4
3	0	4	—	—	—	—	1–2	—	—	—	—	3
2	—	2–3	—	—	—	—	0	—	—	—	—	2
1	—	0–1	—	—	—	—	—	—	—	—	—	1
90% Conf. Int.	2	1	—	2	2	3	2	2	3	1	2	90% Conf. Int.

1:5:0–1:5:30

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		v-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	33–40	74–108	—	53–82	17–48	20–88	53–76	38–62	30–60	77–80	37–72	24
23	32	67–73	—	48–52	15–16	17–19	—	36–37	27–29	73–76	34–36	23
22	31	60–66	—	43–47	13–14	14–16	48–52	34–35	24–26	69–72	32–33	22
21	30	54–59	—	38–42	11–12	12–13	44–47	31–33	21–23	65–68	30–31	21
20	29	48–53	—	33–37	9–10	10–11	41–43	29–30	18–20	62–64	28–29	20
19	28	43–47	—	29–32	7–8	8–9	38–40	26–28	15–17	58–61	26–27	19
18	26–27	38–42	—	25–28	6	7	35–37	24–25	12–14	55–57	24–25	18
17	24–25	34–37	—	21–24	5	6	33–34	21–23	10–11	51–54	21–23	17
16	21–23	30–33	—	18–20	4	5	31–32	19–20	7–9	47–50	19–20	16
15	18–20	27–29	—	16–17	3	4	29–30	16–18	6	44–46	17–18	15
14	16–17	23–26	—	13–15	2	—	26–28	14–15	5	40–43	15–16	14
13	13–15	20–22	—	11–12	1	3	24–25	12–13	4	36–39	13–14	13
12	10–12	18–19	—	10	0	2	22–23	9–11	3	32–35	12	12
11	8–9	15–17	—	8–9	—	1	19–21	7–8	2	27–31	11	11
10	7	13–14	—	7	—	0	17–18	5–6	1	22–26	10	10
9	6	11–12	—	6	—	—	14–16	3–4	0	17–21	9	9
8	5	10	—	4–5	—	—	11–13	2	—	11–16	6–8	8
7	4	8–9	—	3	—	—	9–10	0–1	—	6–10	3–5	7
6	3	7	—	2	—	—	7–8	—	—	4–5	1–2	6
5	2	6	—	0–1	—	—	5–6	—	—	1–3	0	5
4	1	5	—	—	—	—	3–4	—	—	0	—	4
3	0	4	—	—	—	—	1–2	—	—	—	—	3
2	—	2–3	—	—	—	—	0	—	—	—	—	2
1	—	0–1	—	—	—	—	—	—	—	—	—	1
90% Conf. Int.	2	1	—	2	2	3	2	2	3	1	2	90% Conf. Int.

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SUBDOMAIN *v*-Scale Scores

1:6:0–1:6:30

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		*v*-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	33–40	74–108	—	53–82	17–48	20–88	53–76	38–62	30–60	77–80	37–72	24
23	32	67–73	—	48–52	15–16	17–19	—	36–37	27–29	73–76	34–36	23
22	31	60–66	—	43–47	13–14	14–16	48–52	34–35	24–26	69–72	32–33	22
21	30	54–59	—	38–42	11–12	12–13	44–47	31–33	21–23	65–68	30–31	21
20	29	48–53	—	33–37	9–10	10–11	41–43	29–30	18–20	62–64	28–29	20
19	28	43–47	—	29–32	7–8	8–9	38–40	26–28	15–17	58–61	26–27	19
18	26–27	38–42	—	25–28	6	7	35–37	24–25	12–14	55–57	24–25	18
17	24–25	34–37	—	21–24	5	6	33–34	21–23	10–11	51–54	21–23	17
16	21–23	30–33	—	18–20	4	5	31–32	19–20	7–9	47–50	19–20	16
15	18–20	27–29	—	16–17	3	4	29–30	16–18	6	44–46	17–18	15
14	16–17	23–26	—	13–15	2	—	26–28	14–15	5	40–43	15–16	14
13	13–15	20–22	—	11–12	1	3	24–25	12–13	4	36–39	13–14	13
12	10–12	18–19	—	10	0	2	22–23	9–11	3	32–35	12	12
11	8–9	15–17	—	8–9	—	1	19–21	7–8	2	27–31	11	11
10	7	13–14	—	7	—	0	17–18	5–6	1	22–26	10	10
9	6	11–12	—	6	—	—	14–16	3–4	0	17–21	9	9
8	5	10	—	4–5	—	—	11–13	2	—	11–16	6–8	8
7	4	8–9	—	3	—	—	9–10	0–1	—	6–10	3–5	7
6	3	7	—	2	—	—	7–8	—	—	4–5	1–2	6
5	2	6	—	0–1	—	—	5–6	—	—	1–3	0	5
4	1	5	—	—	—	—	3–4	—	—	0	—	4
3	0	4	—	—	—	—	1–2	—	—	—	—	3
2	—	2–3	—	—	—	—	0	—	—	—	—	2
1	—	0–1	—	—	—	—	—	—	—	—	—	1
90% Conf. Int.	2	1	—	2	2	3	2	2	3	1	2	90% Conf. Int.

1:7:0–1:7:30

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		*v*-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	34–40	84–108	—	55–82	17–48	20–88	53–76	38–62	30–60	77–80	40–72	24
23	33	74–83	—	50–54	15–16	17–19	—	36–37	27–29	73–76	37–39	23
22	31–32	67–73	—	45–49	13–14	14–16	48–52	34–35	24–26	70–72	34–36	22
21	30	60–66	—	40–44	11–12	12–13	44–47	31–33	21–23	67–69	32–33	21
20	29	54–59	—	35–39	9–10	10–11	41–43	29–30	18–20	63–66	30–31	20
19	28	48–53	—	31–34	7–8	8–9	38–40	26–28	15–17	59–62	28–29	19
18	26–27	43–47	—	27–30	6	7	35–37	24–25	12–14	55–58	26–27	18
17	24–25	38–42	—	23–26	5	6	33–34	21–23	10–11	51–54	24–25	17
16	21–23	32–37	—	20–22	4	5	31–32	19–20	7–9	47–50	21–23	16
15	18–20	27–31	—	17–19	3	4	29–30	16–18	6	44–46	19–20	15
14	16–17	23–26	—	14–16	2	—	26–28	14–15	5	40–43	17–18	14
13	13–15	20–22	—	12–13	1	3	24–25	12–13	4	36–39	14–16	13
12	10–12	18–19	—	10–11	0	2	22–23	9–11	3	32–35	12–13	12
11	8–9	15–17	—	8–9	—	1	19–21	7–8	2	27–31	11	11
10	7	13–14	—	7	—	0	17–18	5–6	1	22–26	10	10
9	6	11–12	—	6	—	—	14–16	3–4	0	17–21	9	9
8	5	10	—	4–5	—	—	11–13	2	—	11–16	6–8	8
7	4	8–9	—	3	—	—	9–10	0–1	—	6–10	3–5	7
6	3	7	—	2	—	—	7–8	—	—	4–5	1–2	6
5	2	6	—	0–1	—	—	5–6	—	—	1–3	0	5
4	1	5	—	—	—	—	3–4	—	—	0	—	4
3	0	4	—	—	—	—	1–2	—	—	—	—	3
2	—	2–3	—	—	—	—	0	—	—	—	—	2
1	—	0–1	—	—	—	—	—	—	—	—	—	1
90% Conf. Int.	2	1	—	2	2	3	2	2	3	1	2	90% Conf. Int.

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1:8:0–1:8:30

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		v-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	37–40	91–108	—	64–82	17–48	23–88	60–76	44–62	35–60	78–80	48–72	24
23	33–36	74–90	—	53–63	15–16	20–22	57–59	38–43	30–34	77	37–47	23
22	32	67–73	—	48–52	14	17–19	53–56	36–37	27–29	73–76	34–36	22
21	31	60–66	—	43–47	12–13	14–16	48–52	34–35	24–26	69–72	32–33	21
20	30	54–59	—	38–42	11	12–13	44–47	31–33	21–23	65–68	30–31	20
19	29	48–53	—	33–37	9–10	10–11	41–43	29–30	18–20	62–64	28–29	19
18	27–28	43–47	—	29–32	7–8	8–9	38–40	26–28	15–17	58–61	26–27	18
17	25–26	38–42	—	25–28	6	7	35–37	23–25	12–14	55–57	24–25	17
16	23–24	34–37	—	21–24	5	6	33–34	20–22	10–11	51–54	21–23	16
15	21–22	30–33	—	18–20	4	5	31–32	18–19	7–9	47–50	19–20	15
14	18–20	27–29	—	16–17	3	4	28–30	15–17	5–6	44–46	17–18	14
13	16–17	23–26	—	13–15	2	3	25–27	13–14	4	40–43	15–16	13
12	13–15	20–22	—	11–12	1	2	22–24	10–12	3	32–39	13–14	12
11	10–12	16–19	—	10	0	1	19–21	7–9	2	27–31	12	11
10	8–9	13–15	—	8–9	—	0	17–18	5–6	1	22–26	11	10
9	6–7	11–12	—	7	—	—	14–16	3–4	0	17–21	9–10	9
8	5	10	—	4–6	—	—	11–13	2	—	11–16	6–8	8
7	4	8–9	—	3	—	—	9–10	0–1	—	6–10	3–5	7
6	3	7	—	2	—	—	7–8	—	—	4–5	1–2	6
5	2	6	—	0–1	—	—	5–6	—	—	1–3	0	5
4	1	5	—	—	—	—	3–4	—	—	0	—	4
3	0	4	—	—	—	—	1–2	—	—	—	—	3
2	—	2–3	—	—	—	—	0	—	—	—	—	2
1	—	0–1	—	—	—	—	—	—	—	—	—	1
90% Conf. Int.	2	1	—	2	2	3	2	2	3	1	2	90% Conf. Int.

1:9:0–1:9:30

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		v-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	38–40	94–108	—	68–82	17–48	27–88	63–76	47–62	37–60	80	52–72	24
23	33–37	79–93	—	53–67	16	20–26	58–62	38–46	30–36	77–79	37–51	23
22	32	73–78	—	48–52	15	17–19	53–57	36–37	27–29	73–76	35–36	22
21	31	67–72	—	43–47	13–14	14–16	48–52	34–35	24–26	69–72	32–34	21
20	30	60–66	—	38–42	11–12	12–13	44–47	31–33	21–23	65–68	30–31	20
19	29	53–59	—	33–37	9–10	10–11	41–43	29–30	18–20	62–64	28–29	19
18	28	46–52	—	29–32	7–8	8–9	38–40	26–28	15–17	58–61	26–27	18
17	26–27	39–45	—	25–28	6	7	35–37	24–25	12–14	55–57	24–25	17
16	24–25	34–38	—	21–24	5	6	33–34	21–23	10–11	51–54	22–23	16
15	21–23	30–33	—	18–20	4	5	31–32	19–20	7–9	47–50	19–21	15
14	18–20	27–29	—	16–17	3	4	29–30	16–18	6	44–46	17–18	14
13	16–17	23–26	—	13–15	2	—	26–28	14–15	5	40–43	15–16	13
12	13–15	20–22	—	11–12	1	2–3	24–25	12–13	4	36–39	13–14	12
11	10–12	18–19	—	10	0	1	22–23	9–11	2–3	32–35	12	11
10	8–9	15–17	—	8–9	—	0	19–21	7–8	1	24–31	11	10
9	7	12–14	—	7	—	—	16–18	3–6	0	19–23	10	9
8	5–6	10–11	—	6	—	—	11–15	2	—	11–18	8–9	8
7	4	8–9	—	3–5	—	—	9–10	0–1	—	6–10	3–7	7
6	3	7	—	2	—	—	7–8	—	—	4–5	1–2	6
5	2	6	—	0–1	—	—	5–6	—	—	1–3	0	5
4	1	5	—	—	—	—	3–4	—	—	0	—	4
3	0	4	—	—	—	—	1–2	—	—	—	—	3
2	—	2–3	—	—	—	—	0	—	—	—	—	2
1	—	0–1	—	—	—	—	—	—	—	—	—	1
90% Conf. Int.	2	1	—	2	2	3	2	2	3	1	2	90% Conf. Int.

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SUBDOMAIN v-Scale Scores

1:10:0–1:10:30

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		v-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	38–40	94–108	—	68–82	17–48	27–88	63–76	47–62	37–60	80	52–72	24
23	34–37	84–93	—	55–67	16	20–26	58–62	38–46	30–36	77–79	40–51	23
22	33	74–83	—	50–54	15	17–19	53–57	36–37	27–29	73–76	37–39	22
21	31–32	67–73	—	45–49	13–14	14–16	48–52	34–35	24–26	70–72	34–36	21
20	30	60–66	—	40–44	11–12	12–13	44–47	31–33	21–23	67–69	32–33	20
19	29	54–59	—	35–39	9–10	10–11	41–43	29–30	18–20	63–66	30–31	19
18	28	48–53	—	31–34	7–8	8–9	38–40	26–28	15–17	59–62	28–29	18
17	26–27	43–47	—	27–30	6	7	35–37	24–25	12–14	55–58	26–27	17
16	24–25	38–42	—	23–26	5	6	33–34	21–23	10–11	51–54	24–25	16
15	21–23	32–37	—	20–22	4	5	31–32	19–20	7–9	47–50	21–23	15
14	18–20	27–31	—	17–19	3	4	29–30	16–18	6	44–46	19–20	14
13	16–17	23–26	—	14–16	2	—	26–28	14–15	5	40–43	17–18	13
12	13–15	20–22	—	12–13	1	2–3	24–25	12–13	4	36–39	14–16	12
11	10–12	18–19	—	10–11	0	1	22–23	9–11	2–3	32–35	12–13	11
10	8–9	15–17	—	8–9	—	0	19–21	7–8	1	24–31	11	10
9	7	12–14	—	7	—	—	16–18	3–6	0	19–23	10	9
8	5–6	10–11	—	6	—	—	11–15	2	—	11–18	8–9	8
7	4	8–9	—	3–5	—	—	9–10	0–1	—	6–10	3–7	7
6	3	7	—	2	—	—	7–8	—	—	4–5	1–2	6
5	2	6	—	0–1	—	—	5–6	—	—	1–3	0	5
4	1	5	—	—	—	—	3–4	—	—	0	—	4
3	0	4	—	—	—	—	1–2	—	—	—	—	3
2	—	2–3	—	—	—	—	0	—	—	—	—	2
1	—	0–1	—	—	—	—	—	—	—	—	—	1
90% Conf. Int.	2	1	—	2	2	3	2	2	3	1	2	90% Conf. Int.

1:11:0–1:11:30

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		v-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	38–40	94–108	—	68–82	17–48	27–88	63–76	47–62	37–60	80	52–72	24
23	36–37	88–93	—	59–67	16	20–26	58–62	40–46	32–36	77–79	44–51	23
22	33–35	79–87	—	53–58	15	18–19	53–57	37–39	29–31	75–76	37–43	22
21	32	73–78	—	48–52	13–14	15–17	50–52	34–36	26–28	73–74	35–36	21
20	31	67–72	—	43–47	11–12	13–14	47–49	31–33	22–25	69–72	32–34	20
19	29–30	60–66	—	38–42	9–10	11–12	44–46	29–30	19–21	65–68	30–31	19
18	28	53–59	—	33–37	8	10	40–43	26–28	16–18	62–64	28–29	18
17	26–27	46–52	—	29–32	6–7	8–9	37–39	24–25	13–15	58–61	26–27	17
16	24–25	39–45	—	25–28	5	6–7	34–36	21–23	10–12	55–57	24–25	16
15	21–23	34–38	—	21–24	4	5	31–33	19–20	7–9	51–54	22–23	15
14	19–20	30–33	—	18–20	3	4	29–30	16–18*	6	47–50	19–21	14
13	16–18	26–29	—	16–17	2	—	26–28	14–15	5	42–46	17–18	13
12	14–15	21–25	—	13–15	1	2–3	24–25	12–13	4	36–41	15–16	12
11	11–13	18–20	—	11–12	0	1	22–23	9–11	2–3	32–35	13–14	11
10	8–10	15–17	—	10	—	0	19–21	7–8	1	24–31	11–12	10
9	7	12–14	—	8–9	—	—	16–18	3–6	0	19–23	10	9
8	5–6	10–11	—	6–7	—	—	11–15	2	—	11–18	8–9	8
7	4	8–9	—	3–5	—	—	9–10	0–1	—	6–10	3–7	7
6	3	7	—	2	—	—	7–8	—	—	4–5	1–2	6
5	2	6	—	0–1	—	—	5–6	—	—	1–3	0	5
4	1	5	—	—	—	—	3–4	—	—	0	—	4
3	0	4	—	—	—	—	1–2	—	—	—	—	3
2	—	2–3	—	—	—	—	0	—	—	—	—	2
1	—	0–1	—	—	—	—	—	—	—	—	—	1
90% Conf. Int.	2	1	—	2	2	3	2	2	3	1	2	90% Conf. Int.

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2:0:0–2:1:30

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		v-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	40	97–108	—	71–82	18–48	30–88	66–76	50–62	39–60	—	57–72	24
23	37–39	91–96	—	64–70	17	23–29	60–65	44–49	35–38	78–80	48–56	23
22	34–36	84–90	—	55–63	15–16	20–22	57–59	38–43	30–34	77	40–47	22
21	33	79–83	—	50–54	14	17–19	53–56	36–37	27–29	73–76	37–39	21
20	31–32	73–78	—	45–49	12–13	14–16	48–52	34–35	24–26	70–72	35–36	20
19	30	67–72	—	40–44	11	12–13	44–47	31–33	21–23	67–69	32–34	19
18	29	60–66	—	35–39	9–10	10–11	41–43	29–30	18–20	63–66	30–31	18
17	27–28	53–59	—	31–34	7–8	8–9	38–40	26–28	15–17	59–62	28–29	17
16	25–26	46–52	—	27–30	6	7	35–37	23–25	12–14	55–58	26–27	16
15	23–24	39–45	—	23–26	5	6	33–34	20–22	10–11	51–54	24–25	15
14	21–22	32–38	—	20–22	4	5	31–32	18–19	7–9	47–50	22–23	14
13	18–20	27–31	—	17–19	3	4	28–30	15–17	5–6	44–46	19–21	13
12	16–17	23–26	—	14–16	2	3	25–27	13–14	4	40–43	17–18	12
11	13–15	20–22	—	12–13	1	2	22–24	10–12	3	32–39	14–16	11
10	10–12	16–19	—	10–11	0	1	19–21	7–9	2	27–31	12–13	10
9	8–9	13–15	—	8–9	—	0	17–18	5–6	1	22–26	11	9
8	6–7	11–12	—	7	—	—	14–16	2–4	0	17–21	9–10	8
7	4–5	9–10	—	4–6	—	—	9–13	1	—	11–16	6–8	7
6	3	7–8	—	2–3	—	—	7–8	0	—	8–10	4–5	6
5	2	6	—	0–1	—	—	5–6	—	—	2–7	2–3	5
4	1	5	—	—	—	—	3–4	—	—	0–1	0–1	4
3	0	4	—	—	—	—	1–2	—	—	—	—	3
2	—	2–3	—	—	—	—	0	—	—	—	—	2
1	—	0–1	—	—	—	—	—	—	—	—	—	1
90% Conf. Int.	2	1	—	2	2	2	2	2	2	2	2	90% Conf. Int.

2:2:0–2:3:30

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		v-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	40	97–108	—	71–82	18–48	30–88	66–76	50–62	39–60	—	57–72	24
23	38–39	94–96	—	68–70	17	27–29	63–65	47–49	37–38	80	52–56	23
22	36–37	88–93	—	59–67	16	20–26	58–62	40–46	32–36	77–79	44–51	22
21	34–35	84–87	—	55–58	15	18–19	53–57	37–39	29–31	75–76	40–43	21
20	33	79–83	—	50–54	13–14	15–17	50–52	34–36	26–28	73–74	37–39	20
19	31–32	73–78	—	45–49	11–12	13–14	47–49	31–33	22–25	70–72	35–36	19
18	29–30	67–72	—	40–44	9–10	11–12	44–46	29–30	19–21	67–69	32–34	18
17	28	60–66	—	35–39	8	10	40–43	26–28	16–18	63–66	30–31	17
16	26–27	53–59	—	31–34	6–7	8–9	37–39	24–25	13–15	59–62	28–29	16
15	24–25	46–52	—	27–30	5	6–7	34–36	21–23	10–12	55–58	26–27	15
14	21–23	39–45	—	23–26	4	5	31–33	19–20	7–9	51–54	24–25	14
13	19–20	32–38	—	20–22	3	4	29–30	16–18	6	47–50	22–23	13
12	16–18	26–31	—	17–19	2	—	26–28	14–15	5	42–46	19–21	12
11	14–15	21–25	—	14–16	1	2–3	24–25	12–13	4	36–41	17–18	11
10	11–13	18–20	—	12–13	0	1	22–23	9–11	2–3	32–35	14–16	10
9	8–10	15–17	—	10–11	—	0	19–21	7–8	1	24–31	11–13	9
8	7	12–14	—	8–9	—	—	16–18	2–6	0	19–23	10	8
7	4–6	9–11	—	6–7	—	—	9–15	1	—	11–18	8–9	7
6	3	7–8	—	4–5	—	—	7–8	0	—	8–10	6–7	6
5	2	6	—	2–3	—	—	5–6	—	—	2–7	4–5	5
4	1	5	—	0–1	—	—	3–4	—	—	0–1	2–3	4
3	0	4	—	—	—	—	1–2	—	—	—	0–1	3
2	—	2–3	—	—	—	—	0	—	—	—	—	2
1	—	0–1	—	—	—	—	—	—	—	—	—	1
90% Conf. Int.	2	1	—	2	2	2	2	2	2	2	2	90% Conf. Int.

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SUBDOMAIN *v*-Scale Scores

2:4:0–2:5:30

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		*v*-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	40	97–108	—	71–82	18–48	30–88	66–76	50–62	39–60	—	57–72	24
23	38–39	94–96	—	68–70	17	27–29	63–65	47–49	37–38	80	52–56	23
22	37	91–93	—	64–67	16	23–26	60–62	44–46	35–36	78–79	48–51	22
21	36	88–90	—	59–63	15	20–22	57–59	40–43	32–34	77	44–47	21
20	34–35	84–87	—	55–58	14	18–19	53–56	37–39	29–31	75–76	40–43	20
19	33	79–83	—	50–54	12–13	15–17	50–52	34–36	26–28	73–74	37–39	19
18	31–32	73–78	—	45–49	11	13–14	47–49	31–33	22–25	70–72	35–36	18
17	29–30	67–72	—	40–44	9–10	11–12	44–46	29–30	19–21	67–69	32–34	17
16	27–28	60–66	—	35–39	8	10	40–43	26–28	16–18	63–66	30–31	16
15	25–26	53–59	—	31–34	6–7	8–9	37–39	23–25	13–15	59–62	28–29	15
14	23–24	46–52	—	27–30	5	6–7	34–36	20–22	10–12	55–58	26–27	14
13	21–22	39–45	—	23–26	4	5	31–33	18–19	7–9	51–54	24–25	13
12	19–20	32–38	—	20–22	3	4	28–30	15–17	5–6	47–50	22–23	12
11	16–18	26–31	—	17–19	2	2–3	25–27	13–14	4	42–46	19–21	11
10	14–15	21–25	—	14–16	1	1	22–24	10–12	2–3	32–41	17–18	10
9	11–13	16–20	—	12–13	0	0	19–21	7–9	1	24–31	14–16	9
8	8–10	12–15	—	10–11	—	—	16–18	2–6	0	19–23	11–13	8
7	4–7	9–11	—	8–9	—	—	9–15	1	—	11–18	8–10	7
6	3	7–8	—	6–7	—	—	7–8	0	—	8–10	6–7	6
5	2	6	—	4–5	—	—	5–6	—	—	2–7	4–5	5
4	1	5	—	2–3	—	—	3–4	—	—	0–1	2–3	4
3	0	4	—	0–1	—	—	1–2	—	—	—	0–1	3
2	—	2–3	—	—	—	—	0	—	—	—	—	2
1	—	0–1	—	—	—	—	—	—	—	—	—	1
90% Conf. Int.	2	1	—	2	2	2	2	2	2	2	2	90% Conf. Int.

2:6:0–2:7:30

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		*v*-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	40	97–108	—	71–82	19–48	30–88	66–76	50–62	39–60	—	57–72	24
23	38–39	94–96	—	68–70	17–18	27–29	63–65	47–49	37–38	80	52–56	23
22	37	91–93	—	64–67	16	23–26	60–62	44–46	35–36	78–79	48–51	22
21	36	88–90	—	59–63	15	20–22	57–59	40–43	32–34	77	45–47	21
20	34–35	84–87	—	55–58	14	18–19	53–56	37–39	29–31	75–76	41–44	20
19	33	79–83	—	50–54	12–13	15–17	50–52	34–36	26–28	73–74	38–40	19
18	31–32	73–78	—	45–49	11	13–14	47–49	31–33	22–25	70–72	35–37	18
17	29–30	67–72	—	40–44	9–10	11–12	44–46	29–30	19–21	67–69	32–34	17
16	27–28	60–66	—	35–39	8	10	40–43	26–28	16–18	63–66	30–31	16
15	25–26	53–59	—	31–34	6–7	8–9	37–39	23–25	13–15	59–62	28–29	15
14	23–24	46–52	—	27–30	5	6–7	34–36	20–22	10–12	55–58	26–27	14
13	21–22	39–45	—	23–26	4	5	31–33	18–19	7–9	51–54	24–25	13
12	19–20	32–38	—	20–22	3	4	28–30	15–17	5–6	47–50	22–23	12
11	16–18	26–31	—	17–19	2	2–3	25–27	13–14	4	42–46	19–21	11
10	14–15	21–25	—	14–16	1	1	22–24	10–12	2–3	32–41	17–18	10
9	11–13	16–20	—	12–13	0	0	19–21	7–9	1	24–31	14–16	9
8	8–10	12–15	—	10–11	—	—	16–18	2–6	0	19–23	11–13	8
7	4–7	9–11	—	8–9	—	—	9–15	1	—	11–18	8–10	7
6	3	7–8	—	6–7	—	—	7–8	0	—	8–10	6–7	6
5	2	6	—	4–5	—	—	5–6	—	—	2–7	4–5	5
4	1	5	—	2–3	—	—	3–4	—	—	0–1	2–3	4
3	0	4	—	0–1	—	—	1–2	—	—	—	0–1	3
2	—	2–3	—	—	—	—	0	—	—	—	—	2
1	—	0–1	—	—	—	—	—	—	—	—	—	1
90% Conf. Int.	2	1	—	2	2	2	2	2	2	2	2	90% Conf. Int.

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2:8:0–2:9:30

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		v-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	103–108	—	72–82	29–48	38–88	68–76	52–62	47–60	—	69–72	24
23	40	97–102	—	69–71	18–28	30–37	66–67	49–51	39–46	80	57–68	23
22	38–39	94–96	—	66–68	17	27–29	63–65	47–48	37–38	79	52–56	22
21	37	91–93	—	63–65	16	23–26	60–62	44–46	35–36	77–78	48–51	21
20	35–36	88–90	—	59–62	15	20–22	57–59	40–43	31–34	—	44–47	20
19	34	84–87	—	55–58	14	18–19	53–56	37–39	28–30	75–76	40–43	19
18	32–33	79–83	—	50–54	12–13	15–17	50–52	34–36	25–27	73–74	37–39	18
17	31	73–78	—	45–49	10–11	13–14	47–49	31–33	22–24	70–72	35–36	17
16	29–30	67–72	—	40–44	9	11–12	44–46	29–30	19–21	67–69	32–34	16
15	27–28	60–66	—	35–39	7–8	10	40–43	26–28	16–18	63–66	30–31	15
14	25–26	53–59	—	31–34	6	8–9	37–39	23–25	13–15	59–62	28–29	14
13	23–24	46–52	—	27–30	5	6–7	34–36	20–22	10–12	55–58	26–27	13
12	21–22	39–45	—	23–26	4	5	31–33	18–19	7–9	51–54	24–25	12
11	19–20	32–38	—	20–22	2–3	3–4	27–30	14–17	5–6	47–50	22–23	11
10	16–18	26–31	—	17–19	1	1–2	24–26	10–13	3–4	42–46	19–21	10
9	14–15	21–25	—	14–16	0	0	20–23	7–9	1–2	32–41	17–18	9
8	11–13	15–20	—	10–13	—	—	16–19	2–6	0	19–31	14–16	8
7	4–10	9–14	—	8–9	—	—	9–15	1	—	11–18	8–13	7
6	3	7–8	—	6–7	—	—	7–8	0	—	8–10	6–7	6
5	2	6	—	4–5	—	—	5–6	—	—	2–7	4–5	5
4	1	5	—	2–3	—	—	3–4	—	—	0–1	2–3	4
3	0	4	—	0–1	—	—	1–2	—	—	—	0–1	3
2	—	2–3	—	—	—	—	0	—	—	—	—	2
1	—	0–1	—	—	—	—	—	—	—	—	—	1
90% Conf. Int.	2	1	—	2	2	2	2	2	2	2	2	90% Conf. Int.

2:10:0–2:11:30

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		v-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	103–108	—	72–82	29–48	38–88	68–76	52–62	47–60	—	69–72	24
23	40	99–102	—	69–71	22–28	30–37	66–67	49–51	39–46	80	61–68	23
22	38–39	96–98	—	66–68	18–21	27–29	63–65	47–48	37–38	79	56–60	22
21	37	93–95	—	63–65	17	23–26	60–62	44–46	35–36	77–78	52–55	21
20	35–36	89–92	—	59–62	15–16	20–22	57–59	40–43	31–34	—	48–51	20
19	34	84–88	—	55–58	14	18–19	53–56	37–39	28–30	75–76	44–47	19
18	32–33	79–83	—	50–54	12–13	16–17	50–52	34–36	25–27	73–74	40–43	18
17	31	74–78	—	46–49	10–11	13–15	47–49	31–33	22–24	70–72	37–39	17
16	29–30	68–73	—	42–45	9	11–12	44–46	29–30	19–21	67–69	35–36	16
15	27–28	61–67	—	38–41	7–8	10	40–43	26–28	16–18	63–66	32–34	15
14	25–26	54–60	—	34–37	6	8–9	37–39	23–25	13–15	59–62	29–31	14
13	23–24	46–53	—	29–33	5	6–7	34–36	20–22	10–12	55–58	26–28	13
12	21–22	39–45	—	25–28	4	5	31–33	18–19	7–9	51–54	24–25	12
11	19–20	32–38	—	20–24	2–3	3–4	27–30	14–17	5–6	47–50	22–23	11
10	16–18	26–31	—	17–19	1	1–2	24–26	10–13	3–4	42–46	20–21	10
9	14–15	21–25	—	14–16	0	0	20–23	7–9	1–2	32–41	17–19	9
8	11–13	15–20	—	10–13	—	—	16–19	2–6	0	19–31	14–16	8
7	4–10	9–14	—	8–9	—	—	9–15	1	—	11–18	8–13	7
6	3	7–8	—	6–7	—	—	7–8	0	—	8–10	6–7	6
5	2	6	—	4–5	—	—	5–6	—	—	2–7	4–5	5
4	1	5	—	2–3	—	—	3–4	—	—	0–1	2–3	4
3	0	4	—	0–1	—	—	1–2	—	—	—	0–1	3
2	—	2–3	—	—	—	—	0	—	—	—	—	2
1	—	0–1	—	—	—	—	—	—	—	—	—	1
90% Conf. Int.	2	1	—	2	2	2	2	2	2	2	2	90% Conf. Int.

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SUBDOMAIN *v*-Scale Scores

3:0–3:1

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		*v*-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	105–108	19–50	74–82	33–48	43–88	71–76	54–62	51–60	—	72	24
23	40	101–104	16–18	71–73	25–32	33–42	66–70	50–53	43–50	—	65–71	23
22	39	99–100	14–15	68–70	22–24	29–32	63–65	47–49	39–42	80	61–64	22
21	37–38	96–98	12–13	64–67	18–21	26–28	60–62	44–46	35–38	78–79	56–60	21
20	36	93–95	10–11	60–63	17	23–25	58–59	42–43	32–34	77	52–55	20
19	34–35	89–92	8–9	57–59	14–16	20–22	55–57	39–41	29–31	76	48–51	19
18	33	84–88	7	54–56	12–13	18–19	51–54	37–38	26–28	74–75	44–47	18
17	31–32	79–83	6	50–53	11	16–17	48–50	34–36	22–25	71–73	40–43	17
16	29–30	74–78	5	46–49	9–10	13–15	45–47	31–33	19–21	69–70	37–39	16
15	27–28	68–73	4	42–45	8	11–12	41–44	28–30	16–18	65–68	35–36	15
14	25–26	61–67	3	38–41	6–7	9–10	38–40	25–27	13–15	62–64	32–34	14
13	24	54–60	—	34–37	5	7–8	34–37	22–24	10–12	57–61	29–31	13
12	22–23	46–53	2	29–33	4	5–6	31–33	18–21	8–9	53–56	26–28	12
11	20–21	39–45	1	25–28	3	4	28–30	15–17	5–7	48–52	24–25	11
10	18–19	31–38	0	20–24	1–2	2–3	25–27	13–14	4	42–47	22–23	10
9	16–17	23–30	—	15–19	0	1	22–24	10–12	2–3	33–41	20–21	9
8	13–15	16–22	—	12–14	—	0	19–21	5–9	0–1	24–32	15–19	8
7	8–12	12–15	—	10–11	—	—	15–18	2–4	—	18–23	11–14	7
6	6–7	8–11	—	8–9	—	—	13–14	0–1	—	13–17	9–10	6
5	2–5	6–7	—	4–7	—	—	9–12	—	—	5–12	5–8	5
4	1	5	—	2–3	—	—	6–8	—	—	0–4	2–4	4
3	0	4	—	0–1	—	—	2–5	—	—	—	0–1	3
2	—	2–3	—	—	—	—	0–1	—	—	—	—	2
1	—	0–1	—	—	—	—	—	—	—	—	—	1
90% Conf. Int.	2	1	3	2	3	2	2	2	2	2	2	90% Conf. Int.

3:2–3:3

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		*v*-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	105–108	22–50	74–82	33–48	43–88	71–76	54–62	51–60	—	72	24
23	—	103–104	16–21	72–73	29–32	38–42	68–70	52–53	47–50	—	69–71	23
22	40	99–102	14–15	69–71	22–28	30–37	66–67	49–51	39–46	80	61–68	22
21	38–39	96–98	12–13	66–68	19–21	27–29	63–65	47–48	37–38	79	56–60	21
20	37	93–95	10–11	63–65	17–18	23–26	60–62	44–46	35–36	77–78	52–55	20
19	35–36	89–92	8–9	59–62	15–16	20–22	57–59	40–43	31–34	—	48–51	19
18	34	84–88	7	55–58	14	18–19	53–56	37–39	28–30	75–76	45–47	18
17	32–33	79–83	6	50–54	12–13	16–17	50–52	34–36	25–27	73–74	41–44	17
16	31	74–78	—	46–49	10–11	13–15	47–49	31–33	22–24	70–72	38–40	16
15	29–30	68–73	5	42–45	9	11–12	44–46	29–30	19–21	67–69	35–37	15
14	27–28	61–67	4	38–41	7–8	10	40–43	26–28	16–18	63–66	32–34	14
13	25–26	54–60	3	34–37	6	8–9	37–39	23–25	13–15	59–62	29–31	13
12	23–24	46–53	2	29–33	5	6–7	34–36	20–22	10–12	55–58	26–28	12
11	21–22	39–45	1	25–28	4	5	31–33	18–19	7–9	51–54	24–25	11
10	19–20	32–38	0	20–24	1–3	3–4	27–30	14–17	5–6	47–50	22–23	10
9	16–18	26–31	—	17–19	0	1–2	24–26	10–13	3–4	42–46	20–21	9
8	14–15	21–25	—	14–16	—	0	20–23	5–9	0–2	32–41	17–19	8
7	11–13	15–20	—	10–13	—	—	15–19	2–4	—	18–31	14–16	7
6	9–10	12–14	—	8–9	—	—	13–14	0–1	—	13–17	12–13	6
5	6–8	6–11	—	4–7	—	—	9–12	—	—	5–12	9–11	5
4	4–5	5	—	2–3	—	—	6–8	—	—	0–4	7–8	4
3	0–3	4	—	0–1	—	—	2–5	—	—	—	3–6	3
2	—	2–3	—	—	—	—	0–1	—	—	—	0–2	2
1	—	0–1	—	—	—	—	—	—	—	—	—	1
90% Conf. Int.	2	1	3	2	3	2	2	2	2	2	2	90% Conf. Int.

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3:4–3:5

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		*v*-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	105–108	22–50	74–82	33–48	43–88	71–76	54–62	51–60	—	72	24
23	—	103–104	19–21	72–73	29–32	38–42	68–70	52–53	47–50	—	69–71	23
22	40	101–102	16–18	69–71	25–28	33–37	66–67	49–51	43–46	80	65–68	22
21	39	99–100	14–15	66–68	22–24	29–32	63–65	47–48	39–42	79	61–64	21
20	37–38	96–98	12–13	63–65	19–21	26–28	60–62	44–46	35–38	77–78	56–60	20
19	35–36	93–95	10–11	60–62	17–18	23–25	58–59	42–43	31–34	—	52–55	19
18	34	89–92	8–9	57–59	14–16	20–22	55–57	39–41	28–30	76	48–51	18
17	32–33	84–88	7	54–56	12–13	18–19	51–54	37–38	25–27	74–75	45–47	17
16	31	79–83	6	50–53	10–11	16–17	48–50	34–36	22–24	71–73	41–44	16
15	29–30	74–78	5	46–49	9	13–15	45–47	31–33	19–21	69–70	38–40	15
14	27–28	68–73	4	42–45	7–8	11–12	41–44	28–30	16–18	65–68	35–37	14
13	25–26	61–67	3	38–41	6	9–10	38–40	25–27	13–15	62–64	32–34	13
12	24	54–60	2	34–37	5	7–8	34–37	22–24	10–12	57–61	29–31	12
11	22–23	46–53	1	29–33	4	5–6	31–33	18–21	8–9	53–56	26–28	11
10	20–21	39–45	0	25–28	1–3	3–4	27–30	14–17	5–7	48–52	24–25	10
9	18–19	31–38	—	20–24	0	1–2	24–26	10–13	3–4	42–47	22–23	9
8	16–17	23–30	—	15–19	—	0	20–23	5–9	0–2	33–41	20–21	8
7	13–15	15–22	—	10–14	—	—	15–19	2–4	—	18–32	15–19	7
6	11–12	12–14	—	8–9	—	—	13–14	0–1	—	13–17	13–14	6
5	9–10	6–11	—	4–7	—	—	9–12	—	—	5–12	10–12	5
4	7–8	5	—	2–3	—	—	6–8	—	—	0–4	7–9	4
3	4–6	4	—	0–1	—	—	2–5	—	—	—	3–6	3
2	0–3	2–3	—	—	—	—	0–1	—	—	—	0–2	2
1	—	0–1	—	—	—	—	—	—	—	—	—	1
90% Conf. Int.	2	1	3	2	3	2	2	2	2	2	2	90% Conf. Int.

3:6–3:7

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		*v*-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	105–108	22–50	74–82	33–48	43–88	71–76	54–62	51–60	—	72	24
23	—	103–104	19–21	72–73	29–32	38–42	68–70	52–53	47–50	—	69–71	23
22	40	101–102	16–18	69–71	25–28	33–37	66–67	49–51	43–46	80	65–68	22
21	39	99–100	14–15	66–68	22–24	29–32	63–65	47–48	39–42	79	61–64	21
20	37–38	96–98	12–13	63–65	19–21	26–28	60–62	44–46	35–38	77–78	57–60	20
19	35–36	93–95	11	60–62	17–18	23–25	58–59	42–43	31–34	—	53–56	19
18	34	89–92	9–10	57–59	14–16	20–22	55–57	39–41	28–30	76	49–52	18
17	32–33	84–88	7–8	54–56	12–13	18–19	51–54	37–38	25–27	74–75	45–48	17
16	31	79–83	6	50–53	10–11	16–17	48–50	34–36	22–24	71–73	41–44	16
15	29–30	74–78	5	46–49	9	13–15	45–47	31–33	19–21	69–70	38–40	15
14	27–28	68–73	4	42–45	7–8	11–12	41–44	28–30	16–18	65–68	35–37	14
13	25–26	61–67	3	38–41	6	9–10	38–40	25–27	13–15	62–64	32–34	13
12	24	54–60	2	34–37	5	7–8	34–37	22–24	10–12	57–61	29–31	12
11	22–23	46–53	1	29–33	4	5–6	31–33	18–21	8–9	53–56	26–28	11
10	20–21	39–45	0	25–28	1–3	3–4	27–30	14–17	5–7	48–52	24–25	10
9	18–19	31–38	—	20–24	0	1–2	24–26	10–13	3–4	42–47	22–23	9
8	16–17	23–30	—	15–19	—	0	20–23	5–9	0–2	33–41	20–21	8
7	13–15	15–22	—	10–14	—	—	15–19	2–4	—	18–32	15–19	7
6	11–12	12–14	—	8–9	—	—	13–14	0–1	—	13–17	13–14	6
5	9–10	6–11	—	4–7	—	—	9–12	—	—	5–12	10–12	5
4	7–8	5	—	2–3	—	—	6–8	—	—	0–4	7–9	4
3	4–6	4	—	0–1	—	—	2–5	—	—	—	3–6	3
2	0–3	2–3	—	—	—	—	0–1	—	—	—	0–2	2
1	—	0–1	—	—	—	—	—	—	—	—	—	1
90% Conf. Int.	2	1	3	2	3	2	2	2	2	2	2	90% Conf. Int.

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SUBDOMAIN *v*-Scale Scores

3:8–3:9

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		v-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	107–108	22–50	76–82	33–48	50–88	72–76	55–62	51–60	—	72	24
23	—	105–106	20–21	74–75	29–32	43–49	70–71	53–54	48–50	—	69–71	23
22	40	103–104	19	69–73	25–28	38–42	68–69	51–52	45–47	—	67–68	22
21	39	101–102	16–18	67–68	23–24	33–37	65–67	49–50	41–44	80	65–66	21
20	37–38	99–100	14–15	65–66	20–22	29–32	63–64	47–48	38–40	78–79	61–64	20
19	36	96–98	12–13	63–64	18–19	26–28	60–62	44–46	35–37	77	56–60	19
18	35	92–95	10–11	60–62	16–17	23–25	57–59	42–43	31–34	—	52–55	18
17	33–34	88–91	8–9	57–59	13–15	20–22	53–56	39–41	28–30	76	48–51	17
16	32	84–87	7	54–56	11–12	18–19	50–52	37–38	24–27	74–75	45–47	16
15	30–31	79–83	6	50–53	10	16–17	46–49	34–36	21–23	71–73	41–44	15
14	28–29	73–78	5	46–49	8–9	13–15	43–45	31–33	17–20	69–70	38–40	14
13	27	67–72	4	42–45	6–7	11–12	39–42	28–30	14–16	65–68	35–37	13
12	24–26	60–66	2–3	38–41	5	9–10	36–38	24–27	11–13	62–64	32–34	12
11	22–23	53–59	1	34–37	4	7–8	32–35	20–23	8–10	57–61	29–31	11
10	20–21	45–52	0	29–33	2–3	5–6	29–31	16–19	6–7	48–56	26–28	10
9	18–19	36–44	—	24–28	0–1	3–4	24–28	12–15	3–5	42–47	23–25	9
8	16–17	26–35	—	15–23	—	1–2	20–23	7–11	0–2	33–41	20–22	8
7	13–15	15–25	—	10–14	—	0	15–19	2–6	—	18–32	15–19	7
6	11–12	12–14	—	8–9	—	—	13–14	0–1	—	13–17	13–14	6
5	9–10	6–11	—	4–7	—	—	9–12	—	—	5–12	10–12	5
4	7–8	5	—	2–3	—	—	6–8	—	—	0–4	7–9	4
3	4–6	4	—	0–1	—	—	2–5	—	—	—	3–6	3
2	0–3	2–3	—	—	—	—	0–1	—	—	—	0–2	2
1	—	0–1	—	—	—	—	—	—	—	—	—	1
90% Conf. Int.	2	1	3	2	3	2	2	2	2	2	2	90% Conf. Int.

3:10–3:11

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		v-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	107–108	22–50	76–82	33–48	50–88	72–76	55–62	51–60	—	72	24
23	—	105–106	20–21	74–75	29–32	43–49	70–71	53–54	48–50	—	69–71	23
22	40	103–104	19	69–73	25–28	38–42	68–69	51–52	45–47	—	67–68	22
21	39	101–102	16–18	67–68	23–24	33–37	65–67	49–50	41–44	80	65–66	21
20	37–38	99–100	14–15	65–66	20–22	29–32	63–64	47–48	38–40	78–79	61–64	20
19	36	96–98	12–13	63–64	18–19	26–28	60–62	44–46	35–37	77	57–60	19
18	35	92–95	11	60–62	16–17	23–25	57–59	42–43	31–34	—	53–56	18
17	33–34	88–91	9–10	57–59	13–15	20–22	53–56	39–41	28–30	76	49–52	17
16	32	84–87	7–8	54–56	11–12	18–19	50–52	37–38	24–27	74–75	45–48	16
15	30–31	79–83	6	50–53	10	16–17	46–49	34–36	21–23	71–73	41–44	15
14	28–29	73–78	5	46–49	8–9	13–15	43–45	31–33	17–20	69–70	38–40	14
13	27	67–72	4	42–45	6–7	11–12	39–42	28–30	14–16	65–68	35–37	13
12	24–26	60–66	2–3	38–41	5	9–10	36–38	24–27	11–13	62–64	32–34	12
11	22–23	53–59	1	34–37	4	7–8	32–35	20–23	8–10	57–61	29–31	11
10	20–21	45–52	0	29–33	2–3	5–6	29–31	16–19	6–7	48–56	26–28	10
9	18–19	36–44	—	24–28	0–1	3–4	24–28	12–15	3–5	42–47	23–25	9
8	16–17	26–35	—	15–23	—	1–2	20–23	7–11	0–2	33–41	20–22	8
7	13–15	15–25	—	10–14	—	0	15–19	2–6	—	18–32	15–19	7
6	11–12	12–14	—	8–9	—	—	13–14	0–1	—	13–17	13–14	6
5	9–10	6–11	—	4–7	—	—	9–12	—	—	5–12	10–12	5
4	7–8	5	—	2–3	—	—	6–8	—	—	0–4	7–9	4
3	4–6	4	—	0–1	—	—	2–5	—	—	—	3–6	3
2	0–3	2–3	—	—	—	—	0–1	—	—	—	0–2	2
1	—	0–1	—	—	—	—	—	—	—	—	—	1
90% Conf. Int.	2	1	3	2	3	2	2	2	2	2	2	90% Conf. Int.

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4:0–4:1

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		v-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	108	22–50	79–82	34–48	57–88	73–76	56–62	53–60	—	72	24
23	—	106–107	21	74–78	32–33	45–56	71–72	54–55	51–52	—	71	23
22	40	104–105	19–20	72–73	28–31	40–44	68–70	52–53	47–50	—	69–70	22
21	39	101–103	17–18	69–71	25–27	35–39	66–67	49–51	43–46	80	65–68	21
20	38	99–100	16	66–68	22–24	31–34	63–65	47–48	39–42	79	63–64	20
19	37	96–98	14–15	63–65	19–21	28–30	60–62	45–46	35–38	78	60–62	19
18	35–36	93–95	12–13	62	17–18	24–27	58–59	43–44	31–34	77	56–59	18
17	34	89–92	10–11	59–61	14–16	22–23	55–57	40–42	28–30	76	52–55	17
16	32–33	84–88	8–9	56–58	12–13	19–21	51–54	37–39	25–27	74–75	48–51	16
15	31	79–83	7	52–55	10–11	16–18	48–50	34–36	22–24	73	45–47	15
14	29–30	74–78	5–6	49–51	9	14–15	45–47	31–33	19–21	71–72	41–44	14
13	27–28	68–73	4	45–48	7–8	12–13	41–44	28–30	16–18	68–70	37–40	13
12	25–26	61–67	3	41–44	6	10–11	38–40	25–27	13–15	63–67	33–36	12
11	24	54–60	2	38–40	5	8–9	34–37	22–24	10–12	57–62	30–32	11
10	22–23	46–53	1	34–37	3–4	5–7	31–33	18–21	8–9	53–56	27–29	10
9	20–21	39–45	0	25–33	1–2	3–4	27–30	14–17	5–7	47–52	24–26	9
8	17–19	31–38	—	20–24	0	1–2	22–26	10–13	3–4	35–46	22–23	8
7	13–16	23–30	—	14–19	—	0	17–21	5–9	0–2	20–34	18–21	7
6	11–12	19–22	—	10–13	—	—	14–16	2–4	—	14–19	16–17	6
5	9–10	11–18	—	4–9	—	—	9–13	0–1	—	5–13	13–15	5
4	7–8	5–10	—	2–3	—	—	6–8	—	—	0–4	10–12	4
3	4–6	4	—	0–1	—	—	2–5	—	—	—	6–9	3
2	0–3	2–3	—	—	—	—	0–1	—	—	—	2–5	2
1	—	0–1	—	—	—	—	—	—	—	—	0–1	1
90% Conf. Int.	3	1	2	3	2	2	2	2	2	2	2	90% Conf. Int.

4:2–4:3

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		v-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	108	22–50	79–82	34–48	57–88	73–76	56–62	53–60	—	72	24
23	—	107	21	76–78	32–33	50–56	72	55	51–52	—	71	23
22	40	105–106	20	74–75	28–31	43–49	70–71	53–54	48–50	—	69–70	22
21	39	103–104	19	69–73	25–27	38–42	68–69	51–52	45–47	—	67–68	21
20	38	101–102	16–18	67–68	23–24	33–37	65–67	49–50	41–44	80	65–66	20
19	37	99–100	14–15	65–66	20–22	29–32	63–64	47–48	38–40	78–79	61–64	19
18	36	96–98	12–13	63–64	18–19	26–28	60–62	44–46	35–37	77	57–60	18
17	35	92–95	11	60–62	16–17	23–25	57–59	42–43	31–34	—	53–56	17
16	33–34	88–91	9–10	57–59	13–15	20–22	53–56	39–41	28–30	76	49–52	16
15	32	84–87	7–8	54–56	11–12	18–19	50–52	37–38	24–27	74–75	45–48	15
14	30–31	79–83	6	50–53	10	16–17	46–49	34–36	21–23	71–73	41–44	14
13	28–29	73–78	5	46–49	8–9	13–15	43–45	31–33	17–20	69–70	38–40	13
12	27	67–72	4	42–45	6–7	11–12	39–42	28–30	14–16	65–68	35–37	12
11	24–26	60–66	2–3	38–41	5	9–10	36–38	24–27	11–13	62–64	32–34	11
10	22–23	53–59	1	34–37	3–4	7–8	32–35	20–23	8–10	57–61	29–31	10
9	20–21	45–52	0	29–33	2	5–6	29–31	16–19	6–7	47–56	26–28	9
8	17–19	36–44	—	24–28	0–1	3–4	22–28	12–15	3–5	35–46	23–25	8
7	13–16	26–35	—	14–23	—	1–2	17–21	7–11	0–2	20–34	18–22	7
6	11–12	21–25	—	10–13	—	0	14–16	4–6	—	14–19	16–17	6
5	9–10	12–20	—	4–9	—	—	9–13	0–3	—	5–13	13–15	5
4	7–8	5–11	—	2–3	—	—	6–8	—	—	0–4	10–12	4
3	4–6	4	—	0–1	—	—	2–5	—	—	—	6–9	3
2	0–3	2–3	—	—	—	—	0–1	—	—	—	2–5	2
1	—	0–1	—	—	—	—	—	—	—	—	0–1	1
90% Conf. Int.	3	1	2	3	2	2	2	2	2	2	2	90% Conf. Int.

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SUBDOMAIN *v*-Scale Scores

4:4–4:5

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		*v*-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	108	22–50	79–82	34–48	57–88	73–76	56–62	53–60	—	72	24
23	—	107	21	76–78	32–33	50–56	72	55	51–52	—	71	23
22	40	106	20	74–75	28–31	45–49	70–71	53–54	48–50	—	69–70	22
21	39	104–105	19	69–73	25–27	40–44	68–69	51–52	45–47	—	67–68	21
20	38	101–103	17–18	67–68	23–24	35–39	65–67	49–50	41–44	80	65–66	20
19	37	99–100	16	65–66	20–22	31–34	63–64	47–48	38–40	78–79	63–64	19
18	36	96–98	14–15	63–64	18–19	28–30	60–62	45–46	35–37	—	60–62	18
17	35	92–95	12–13	62	16–17	24–27	57–59	43–44	31–34	77	57–59	17
16	33–34	88–91	11	59–61	13–15	22–23	53–56	40–42	28–30	76	53–56	16
15	32	84–87	9–10	56–58	11–12	19–21	50–52	37–39	24–27	74–75	49–52	15
14	30–31	79–83	7–8	52–55	10	16–18	46–49	34–36	21–23	73	45–48	14
13	28–29	73–78	5–6	49–51	8–9	14–15	43–45	31–33	17–20	71–72	41–44	13
12	27	67–72	4	45–48	6–7	12–13	39–42	28–30	14–16	68–70	37–40	12
11	24–26	60–66	2–3	41–44	5	10–11	36–38	24–27	11–13	63–67	33–36	11
10	22–23	53–59	1	38–40	3–4	8–9	32–35	20–23	8–10	57–62	30–32	10
9	20–21	45–52	0	34–37	2	5–7	29–31	16–19	6–7	47–56	27–29	9
8	17–19	36–44	—	24–33	0–1	3–4	22–28	12–15	3–5	35–46	23–26	8
7	13–16	26–35	—	14–23	—	1–2	17–21	7–11	0–2	20–34	18–22	7
6	11–12	21–25	—	10–13	—	0	14–16	4–6	—	14–19	16–17	6
5	9–10	12–20	—	4–9	—	—	9–13	0–3	—	5–13	13–15	5
4	7–8	5–11	—	2–3	—	—	6–8	—	—	0–4	10–12	4
3	4–6	4	—	0–1	—	—	2–5	—	—	—	6–9	3
2	0–3	2–3	—	—	—	—	0–1	—	—	—	2–5	2
1	—	0–1	—	—	—	—	—	—	—	—	0–1	1
90% Conf. Int.	3	1	2	3	2	2	2	2	2	2	2	90% Conf. Int.

4:6–4:7

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		*v*-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	108	26–50	79–82	34–48	57–88	73–76	56–62	53–60	—	72	24
23	—	107	22–25	76–78	32–33	50–56	72	55	51–52	—	71	23
22	40	106	21	74–75	28–31	45–49	70–71	53–54	48–50	—	69–70	22
21	39	104–105	19–20	69–73	25–27	40–44	68–69	51–52	45–47	—	67–68	21
20	38	101–103	17–18	67–68	23–24	35–39	65–67	49–50	41–44	80	65–66	20
19	37	99–100	16	65–66	20–22	31–34	63–64	47–48	38–40	78–79	63–64	19
18	36	96–98	14–15	63–64	18–19	28–30	60–62	45–46	35–37	—	60–62	18
17	35	92–95	12–13	62	16–17	24–27	57–59	43–44	31–34	77	57–59	17
16	33–34	88–91	11	59–61	13–15	22–23	53–56	40–42	28–30	76	53–56	16
15	32	84–87	9–10	56–58	11–12	19–21	50–52	37–39	24–27	74–75	49–52	15
14	30–31	79–83	7–8	52–55	10	16–18	46–49	34–36	21–23	73	45–48	14
13	28–29	73–78	5–6	49–51	8–9	14–15	43–45	31–33	17–20	71–72	41–44	13
12	27	67–72	4	45–48	6–7	12–13	39–42	28–30	14–16	68–70	37–40	12
11	24–26	60–66	2–3	41–44	5	10–11	36–38	24–27	11–13	63–67	33–36	11
10	22–23	53–59	1	38–40	3–4	8–9	32–35	20–23	8–10	57–62	30–32	10
9	20–21	45–52	0	34–37	2	5–7	29–31	16–19	6–7	47–56	27–29	9
8	17–19	36–44	—	24–33	0–1	3–4	22–28	12–15	3–5	35–46	23–26	8
7	13–16	26–35	—	14–23	—	1–2	17–21	7–11	0–2	20–34	18–22	7
6	11–12	21–25	—	10–13	—	0	14–16	4–6	—	14–19	16–17	6
5	9–10	12–20	—	4–9	—	—	9–13	0–3	—	5–13	13–15	5
4	7–8	5–11	—	2–3	—	—	6–8	—	—	0–4	10–12	4
3	4–6	4	—	0–1	—	—	2–5	—	—	—	6–9	3
2	0–3	2–3	—	—	—	—	0–1	—	—	—	2–5	2
1	—	0–1	—	—	—	—	—	—	—	—	0–1	1
90% Conf. Int.	3	1	2	3	2	2	2	2	2	2	2	90% Conf. Int.

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4:8–4:9

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		v-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	108	33–50	79–82	34–48	58–88	73–76	57–62	56–60	—	72	24
23	—	107	24–32	76–78	32–33	54–57	72	56	53–55	—	71	23
22	—	106	21–23	74–75	29–31	50–53	70–71	55	50–52	—	—	22
21	40	105	20	71–73	27–28	45–49	68–69	53–54	46–49	—	69–70	21
20	39	103–104	19	69–70	24–26	40–44	65–67	51–52	43–45	80	67–68	20
19	38	100–102	17–18	67–68	22–23	35–39	63–64	48–50	39–42	79	65–66	19
18	37	97–99	16	65–66	19–21	31–34	60–62	46–47	36–38	78	63–64	18
17	35–36	94–96	14–15	63–64	16–18	28–30	57–59	44–45	32–35	—	60–62	17
16	34	91–93	12–13	62	14–15	24–27	54–56	41–43	28–31	77	57–59	16
15	32–33	86–90	11	59–61	11–13	21–23	50–53	38–40	24–27	75–76	53–56	15
14	30–31	82–85	9–10	56–58	10	18–20	47–49	35–37	21–23	73–74	49–52	14
13	28–29	76–81	7–8	52–55	8–9	15–17	43–46	32–34	17–20	71–72	45–48	13
12	27	70–75	5–6	49–51	6–7	13–14	39–42	29–31	14–16	68–70	41–44	12
11	24–26	63–69	4	44–48	5	11–12	36–38	26–28	11–13	63–67	37–40	11
10	22–23	55–62	2–3	38–43	3–4	10	32–35	22–25	8–10	57–62	32–36	10
9	20–21	46–54	0–1	34–37	2	8–9	29–31	18–21	6–7	47–56	27–31	9
8	17–19	36–45	—	24–33	0–1	5–7	22–28	12–17	3–5	35–46	23–26	8
7	13–16	26–35	—	14–23	—	1–4	17–21	7–11	0–2	20–34	18–22	7
6	11–12	21–25	—	10–13	—	0	14–16	4–6	—	14–19	16–17	6
5	9–10	12–20	—	4–9	—	—	9–13	0–3	—	5–13	13–15	5
4	7–8	5–11	—	2–3	—	—	6–8	—	—	0–4	10–12	4
3	4–6	4	—	0–1	—	—	2–5	—	—	—	6–9	3
2	0–3	2–3	—	—	—	—	0–1	—	—	—	2–5	2
1	—	0–1	—	—	—	—	—	—	—	—	0–1	1
90% Conf. Int.	3	1	2	3	2	2	2	2	2	2	2	90% Conf. Int.

4:10–4:11

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		v-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	108	33–50	79–82	34–48	58–88	73–76	57–62	56–60	—	72	24
23	—	107	28–32	76–78	32–33	54–57	72	56	53–55	—	71	23
22	—	106	24–27	74–75	29–31	50–53	70–71	55	50–52	—	—	22
21	40	105	21–23	71–73	27–28	45–49	68–69	53–54	46–49	—	69–70	21
20	39	103–104	20	69–70	24–26	40–44	65–67	51–52	43–45	80	68	20
19	38	100–102	19	67–68	22–23	35–39	63–64	48–50	39–42	79	66–67	19
18	37	97–99	17–18	65–66	19–21	31–34	60–62	46–47	36–38	78	63–65	18
17	35–36	94–96	15–16	63–64	16–18	28–30	57–59	44–45	32–35	—	60–62	17
16	34	91–93	13–14	62	14–15	24–27	54–56	41–43	28–31	77	57–59	16
15	32–33	86–90	11–12	59–61	11–13	21–23	50–53	38–40	24–27	75–76	53–56	15
14	30–31	82–85	9–10	56–58	10	18–20	47–49	35–37	21–23	73–74	49–52	14
13	28–29	76–81	7–8	52–55	8–9	15–17	43–46	32–34	17–20	71–72	45–48	13
12	27	70–75	6	49–51	6–7	13–14	39–42	29–31	14–16	68–70	41–44	12
11	24–26	63–69	4–5	44–48	5	11–12	36–38	26–28	11–13	63–67	37–40	11
10	22–23	55–62	2–3	38–43	3–4	10	32–35	22–25	8–10	57–62	32–36	10
9	20–21	46–54	0–1	34–37	2	8–9	29–31	18–21	6–7	47–56	27–31	9
8	17–19	36–45	—	24–33	0–1	5–7	22–28	12–17	3–5	35–46	23–26	8
7	13–16	26–35	—	14–23	—	1–4	17–21	7–11	0–2	20–34	18–22	7
6	11–12	21–25	—	10–13	—	0	14–16	4–6	—	14–19	16–17	6
5	9–10	12–20	—	4–9	—	—	9–13	0–3	—	5–13	13–15	5
4	7–8	5–11	—	2–3	—	—	6–8	—	—	0–4	10–12	4
3	4–6	4	—	0–1	—	—	2–5	—	—	—	6–9	3
2	0–3	2–3	—	—	—	—	0–1	—	—	—	2–5	2
1	—	0–1	—	—	—	—	—	—	—	—	0–1	1
90% Conf. Int.	3	1	2	3	2	2	2	2	2	2	2	90% Conf. Int.

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SUBDOMAIN *v*-Scale Scores

5:0–5:1

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		*v*-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	108	35–50	79–82	34–48	60–88	73–76	58–62	58–60	—	—	24
23	—	107	31–34	77–78	33	57–59	72	56–57	53–57	—	72	23
22	—	—	28–30	75–76	31–32	50–56	71	55	51–52	—	71	22
21	40	106	24–27	73–74	28–30	45–49	69–70	53–54	48–50	—	70	21
20	39	104–105	21–23	69–72	25–27	41–44	67–68	51–52	45–47	80	69	20
19	38	101–103	20	67–68	23–24	36–40	65–66	49–50	41–44	—	68	19
18	37	99–100	19	65–66	20–22	32–35	63–64	47–48	38–40	79	66–67	18
17	36	96–98	17–18	63–64	18–19	28–31	60–62	45–46	35–37	78	63–65	17
16	35	92–95	15–16	—	16–17	24–27	57–59	43–44	31–34	77	60–62	16
15	33–34	88–91	13–14	60–62	13–15	22–23	53–56	40–42	28–30	76	56–59	15
14	32	84–87	11–12	57–59	11–12	19–21	50–52	37–39	24–27	74–75	52–55	14
13	30–31	79–83	9–10	53–56	9–10	16–18	46–49	34–36	21–23	72–73	47–51	13
12	28–29	73–78	7–8	49–52	7–8	14–15	42–45	31–33	17–20	69–71	42–46	12
11	26–27	67–72	6	45–48	5–6	12–13	38–41	28–30	14–16	65–68	37–41	11
10	24–25	60–66	4–5	41–44	3–4	10–11	34–37	24–27	11–13	61–64	33–36	10
9	21–23	53–59	1–3	38–40	2	8–9	30–33	20–23	8–10	55–60	30–32	9
8	17–20	36–52	0	31–37	1	5–7	26–29	16–19	5–7	39–54	27–29	8
7	13–16	31–35	—	20–30	0	3–4	19–25	11–15	0–4	26–38	18–26	7
6	11–12	26–30	—	16–19	—	1–2	16–18	8–10	—	20–25	16–17	6
5	9–10	16–25	—	9–15	—	0	11–15	4–7	—	8–19	13–15	5
4	7–8	6–15	—	2–8	—	—	6–10	0–3	—	0–7	10–12	4
3	4–6	4–5	—	0–1	—	—	2–5	—	—	—	6–9	3
2	0–3	2–3	—	—	—	—	0–1	—	—	—	2–5	2
1	—	0–1	—	—	—	—	—	—	—	—	0–1	1
90% Conf. Int.	2	1	2	2	2	2	2	2	2	2	2	90% Conf. Int.

5:2–5:3

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		*v*-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	108	35–50	79–82	34–48	60–88	73–76	58–62	58–60	—	—	24
23	—	107	33–34	77–78	33	58–59	72	57	56–57	—	72	23
22	—	—	28–32	75–76	31–32	54–57	71	56	53–55	—	71	22
21	—	106	26–27	73–74	29–30	50–53	69–70	55	50–52	—	—	21
20	40	105	24–25	71–72	27–28	45–49	67–68	53–54	46–49	80	69–70	20
19	39	103–104	21–23	69–70	24–26	40–44	65–66	51–52	43–45	—	68	19
18	38	100–102	19–20	67–68	22–23	35–39	63–64	48–50	39–42	79	66–67	18
17	37	97–99	17–18	65–66	19–21	31–34	60–62	46–47	36–38	78	63–65	17
16	35–36	94–96	15–16	63–64	16–18	28–30	57–59	44–45	32–35	—	60–62	16
15	34	91–93	13–14	62	14–15	24–27	54–56	41–43	28–31	77	57–59	15
14	32–33	86–90	11–12	59–61	11–13	21–23	50–53	38–40	24–27	75–76	53–56	14
13	30–31	82–85	9–10	56–58	9–10	18–20	47–49	35–37	21–23	72–74	49–52	13
12	28–29	76–81	7–8	52–55	7–8	15–17	42–46	32–34	17–20	69–71	45–48	12
11	26–27	70–75	6	49–51	5–6	13–14	38–41	29–31	14–16	65–68	41–44	11
10	24–25	63–69	4–5	44–48	3–4	11–12	34–37	26–28	11–13	61–64	37–40	10
9	21–23	55–62	2–3	38–43	2	10	30–33	22–25	8–10	55–60	32–36	9
8	17–20	36–54	0–1	31–37	1	8–9	26–29	18–21	5–7	39–54	27–31	8
7	13–16	31–35	—	20–30	0	5–7	19–25	11–17	0–4	26–38	18–26	7
6	11–12	26–30	—	16–19	—	3–4	16–18	8–10	—	20–25	16–17	6
5	9–10	16–25	—	9–15	—	1–2	11–15	4–7	—	8–19	13–15	5
4	7–8	6–15	—	2–8	—	0	6–10	0–3	—	0–7	10–12	4
3	4–6	4–5	—	0–1	—	—	2–5	—	—	—	6–9	3
2	0–3	2–3	—	—	—	—	0–1	—	—	—	2–5	2
1	—	0–1	—	—	—	—	—	—	—	—	0–1	1
90% Conf. Int.	2	1	2	2	2	2	2	2	2	2	2	90% Conf. Int.

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5:4–5:5

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		v-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	108	35–50	79–82	34–48	60–88	73–76	58–62	58–60	—	—	24
23	—	107	33–34	77–78	33	58–59	72	57	56–57	—	72	23
22	—	—	31–32	75–76	31–32	54–57	71	56	53–55	—	71	22
21	—	106	28–30	73–74	29–30	50–53	69–70	55	50–52	—	—	21
20	40	105	26–27	71–72	27–28	45–49	67–68	53–54	46–49	80	70	20
19	39	103–104	24–25	69–70	24–26	41–44	65–66	51–52	43–45	—	69	19
18	38	100–102	21–23	67–68	22–23	36–40	63–64	48–50	39–42	79	68	18
17	37	97–99	19–20	65–66	19–21	32–35	60–62	46–47	36–38	—	66–67	17
16	35–36	94–96	17–18	63–64	16–18	28–31	57–59	44–45	32–35	78	63–65	16
15	34	91–93	15–16	—	14–15	24–27	54–56	41–43	28–31	77	60–62	15
14	32–33	86–90	13–14	60–62	11–13	21–23	50–53	38–40	24–27	75–76	56–59	14
13	30–31	82–85	11–12	57–59	9–10	18–20	47–49	35–37	21–23	72–74	52–55	13
12	28–29	76–81	9–10	53–56	7–8	15–17	42–46	32–34	17–20	69–71	47–51	12
11	26–27	70–75	7–8	49–52	5–6	13–14	38–41	29–31	14–16	65–68	42–46	11
10	24–25	63–69	6	44–48	3–4	11–12	34–37	26–28	11–13	61–64	37–41	10
9	21–23	55–62	4–5	38–43	2	10	30–33	22–25	8–10	55–60	32–36	9
8	17–20	36–54	0–3	31–37	1	8–9	26–29	18–21	5–7	39–54	27–31	8
7	13–16	31–35	—	20–30	0	5–7	19–25	11–17	0–4	26–38	18–26	7
6	11–12	26–30	—	16–19	—	3–4	16–18	8–10	—	20–25	16–17	6
5	9–10	16–25	—	9–15	—	1–2	11–15	4–7	—	8–19	13–15	5
4	7–8	6–15	—	2–8	—	0	6–10	0–3	—	0–7	10–12	4
3	4–6	4–5	—	0–1	—	—	2–5	—	—	—	6–9	3
2	0–3	2–3	—	—	—	—	0–1	—	—	—	2–5	2
1	—	0–1	—	—	—	—	—	—	—	—	0–1	1
90% Conf. Int.	2	1	2	2	2	2	2	2	2	2	2	90% Conf. Int.

5:6–5:7

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		v-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	108	35–50	79–82	34–48	60–88	73–76	58–62	58–60	—	—	24
23	—	107	33–34	77–78	33	58–59	72	57	56–57	—	72	23
22	—	—	31–32	75–76	31–32	54–57	71	56	53–55	—	71	22
21	—	106	28–30	73–74	29–30	50–53	69–70	55	50–52	—	—	21
20	40	105	26–27	71–72	27–28	45–49	67–68	53–54	46–49	80	70	20
19	39	103–104	24–25	69–70	24–26	41–44	65–66	51–52	43–45	—	69	19
18	38	100–102	22–23	67–68	22–23	36–40	63–64	48–50	39–42	79	68	18
17	37	97–99	20–21	65–66	19–21	32–35	60–62	46–47	36–38	—	66–67	17
16	35–36	94–96	18–19	63–64	16–18	28–31	57–59	44–45	32–35	78	64–65	16
15	34	91–93	16–17	—	14–15	24–27	54–56	41–43	28–31	77	61–63	15
14	32–33	86–90	13–15	60–62	11–13	21–23	50–53	38–40	24–27	75–76	56–60	14
13	30–31	82–85	11–12	57–59	9–10	18–20	47–49	35–37	21–23	72–74	52–55	13
12	28–29	76–81	9–10	53–56	7–8	15–17	42–46	32–34	17–20	69–71	47–51	12
11	26–27	70–75	7–8	49–52	5–6	13–14	38–41	29–31	14–16	65–68	42–46	11
10	24–25	63–69	6	44–48	3–4	11–12	34–37	26–28	11–13	61–64	37–41	10
9	21–23	55–62	4–5	38–43	2	10	30–33	22–25	8–10	55–60	32–36	9
8	17–20	36–54	0–3	31–37	1	8–9	26–29	18–21	5–7	39–54	27–31	8
7	13–16	31–35	—	20–30	0	5–7	19–25	11–17	0–4	26–38	18–26	7
6	11–12	26–30	—	16–19	—	3–4	16–18	8–10	—	20–25	16–17	6
5	9–10	16–25	—	9–15	—	1–2	11–15	4–7	—	8–19	13–15	5
4	7–8	6–15	—	2–8	—	0	6–10	0–3	—	0–7	10–12	4
3	4–6	4–5	—	0–1	—	—	2–5	—	—	—	6–9	3
2	0–3	2–3	—	—	—	—	0–1	—	—	—	2–5	2
1	—	0–1	—	—	—	—	—	—	—	—	0–1	1
90% Conf. Int.	2	1	2	2	2	2	2	2	2	2	2	90% Conf. Int.

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SUBDOMAIN *v*-Scale Scores

5:8–5:9

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		*v*-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	108	41–50	79–82	40–48	65–88	75–76	61–62	59–60	—	—	24
23	—	—	35–40	77–78	34–39	60–64	73–74	58–60	57–58	—	—	23
22	—	107	33–34	75–76	33	58–59	72	57	55–56	—	72	22
21	—	—	31–32	74	31–32	54–57	71	56	50–54	—	71	21
20	40	105–106	28–30	73	28–30	50–53	69–70	54–55	47–49	—	—	20
19	39	103–104	26–27	71–72	25–27	45–49	67–68	52–53	44–46	80	70	19
18	38	101–102	24–25	69–70	22–24	41–44	65–66	50–51	41–43	—	69	18
17	37	99–100	21–23	67–68	19–21	36–40	62–64	48–49	37–40	79	68	17
16	35–36	96–98	19–20	65–66	17–18	32–35	58–61	46–47	33–36	—	66–67	16
15	34	92–95	17–18	63–64	14–16	28–31	54–57	43–45	28–32	78	63–65	15
14	32–33	88–91	15–16	62	12–13	24–27	51–53	40–42	24–27	77	60–62	14
13	30–31	83–87	13–14	59–61	9–11	21–23	47–50	37–39	21–23	75–76	56–59	13
12	28–29	77–82	11–12	54–58	7–8	17–20	42–46	33–36	17–20	72–74	52–55	12
11	26–27	70–76	9–10	49–53	5–6	13–16	38–41	29–32	14–16	68–71	47–51	11
10	24–25	63–69	7–8	44–48	4	11–12	34–37	26–28	11–13	62–67	42–46	10
9	21–23	55–62	4–6	38–43	2–3	10	30–33	22–25	8–10	55–61	32–41	9
8	17–20	36–54	0–3	31–37	1	8–9	26–29	18–21	5–7	39–54	27–31	8
7	13–16	31–35	—	20–30	0	5–7	19–25	11–17	0–4	26–38	18–26	7
6	11–12	26–30	—	16–19	—	3–4	16–18	8–10	—	20–25	16–17	6
5	9–10	16–25	—	9–15	—	1–2	11–15	4–7	—	8–19	13–15	5
4	7–8	6–15	—	2–8	—	0	6–10	0–3	—	0–7	10–12	4
3	4–6	4–5	—	0–1	—	—	2–5	—	—	—	6–9	3
2	0–3	2–3	—	—	—	—	0–1	—	—	—	2–5	2
1	—	0–1	—	—	—	—	—	—	—	—	0–1	1
90% Conf. Int.	2	1	2	2	2	2	2	2	2	2	2	90% Conf. Int.

5:10–5:11

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		*v*-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	108	41–50	79–82	40–48	65–88	75–76	61–62	59–60	—	—	24
23	—	—	35–40	77–78	34–39	60–64	73–74	58–60	57–58	—	—	23
22	—	107	33–34	75–76	33	58–59	72	57	55–56	—	72	22
21	—	—	31–32	74	31–32	54–57	71	56	50–54	—	71	21
20	40	105–106	28–30	73	28–30	50–53	69–70	54–55	47–49	—	—	20
19	39	103–104	26–27	71–72	25–27	45–49	67–68	52–53	44–46	80	70	19
18	38	101–102	24–25	69–70	22–24	41–44	65–66	50–51	41–43	—	69	18
17	37	99–100	22–23	67–68	19–21	36–40	62–64	48–49	37–40	79	68	17
16	35–36	96–98	20–21	65–66	17–18	32–35	58–61	46–47	33–36	—	66–67	16
15	34	92–95	18–19	63–64	14–16	28–31	54–57	43–45	28–32	78	64–65	15
14	32–33	88–91	16–17	62	12–13	24–27	51–53	40–42	24–27	77	61–63	14
13	30–31	83–87	13–15	59–61	9–11	21–23	47–50	37–39	21–23	75–76	56–60	13
12	28–29	77–82	11–12	54–58	7–8	17–20	42–46	33–36	17–20	72–74	52–55	12
11	26–27	70–76	9–10	49–53	5–6	13–16	38–41	29–32	14–16	68–71	47–51	11
10	24–25	63–69	7–8	44–48	4	11–12	34–37	26–28	11–13	62–67	42–46	10
9	21–23	55–62	4–6	38–43	2–3	10	30–33	22–25	8–10	55–61	32–41	9
8	17–20	36–54	0–3	31–37	1	8–9	26–29	18–21	5–7	39–54	27–31	8
7	13–16	31–35	—	20–30	0	5–7	19–25	11–17	0–4	26–38	18–26	7
6	11–12	26–30	—	16–19	—	3–4	16–18	8–10	—	20–25	16–17	6
5	9–10	16–25	—	9–15	—	1–2	11–15	4–7	—	8–19	13–15	5
4	7–8	6–15	—	2–8	—	0	6–10	0–3	—	0–7	10–12	4
3	4–6	4–5	—	0–1	—	—	2–5	—	—	—	6–9	3
2	0–3	2–3	—	—	—	—	0–1	—	—	—	2–5	2
1	—	0–1	—	—	—	—	—	—	—	—	0–1	1
90% Conf. Int.	2	1	2	2	2	2	2	2	2	2	2	90% Conf. Int.

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6:0–6:2

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		v-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	—	43–50	79–82	43–48	68–88	—	62	60	—	—	24
23	—	108	38–42	78	37–42	62–67	74–76	59–61	58–59	—	—	23
22	—	107	35–37	76–77	34–36	59–61	72–73	57–58	56–57	—	—	22
21	—	—	33–34	75	31–33	55–58	71	56	53–55	—	72	21
20	40	106	30–32	73–74	29–30	53–54	69–70	55	50–52	—	71	20
19	39	104–105	28–29	72	27–28	49–52	67–68	53–54	46–49	—	—	19
18	38	103	26–27	70–71	24–26	45–48	65–66	51–52	43–45	80	70	18
17	37	100–102	24–25	68–69	22–23	41–44	63–64	48–50	39–42	79	69	17
16	36	97–99	22–23	66–67	19–21	36–40	60–62	46–47	36–38	—	68	16
15	35	94–96	20–21	64–65	16–18	31–35	57–59	44–45	32–35	78	66–67	15
14	33–34	91–93	18–19	63	14–15	25–30	54–56	41–43	28–31	77	64–65	14
13	32	86–90	16–17	60–62	11–13	21–24	50–53	38–40	24–27	75–76	61–63	13
12	30–31	82–85	13–15	57–59	9–10	18–20	47–49	35–37	20–23	72–74	56–60	12
11	27–29	76–81	11–12	53–56	7–8	15–17	42–46	32–34	16–19	69–71	50–55	11
10	25–26	69–75	8–10	48–52	5–6	13–14	37–41	29–31	12–15	65–68	42–49	10
9	22–24	59–68	6–7	42–47	3–4	11–12	32–36	24–28	8–11	61–64	37–41	9
8	18–21	47–58	4–5	33–41	2	9–10	27–31	18–23	5–7	45–60	32–36	8
7	13–17	31–46	0–3	22–32	0–1	7–8	21–26	13–17	0–4	29–44	18–31	7
6	11–12	26–30	—	17–21	—	5–6	18–20	10–12	—	22–28	16–17	6
5	9–10	16–25	—	9–16	—	3–4	12–17	4–9	—	10–21	13–15	5
4	7–8	6–15	—	2–8	—	1–2	7–11	0–3	—	0–9	10–12	4
3	4–6	4–5	—	0–1	—	0	2–6	—	—	—	6–9	3
2	0–3	2–3	—	—	—	—	0–1	—	—	—	2–5	2
1	—	0–1	—	—	—	—	—	—	—	—	0–1	1
90% Conf. Int.	2	2	2	2	2	2	2	2	1	2	2	90% Conf. Int.

6:3–6:5

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		v-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	—	43–50	79–82	43–48	68–88	—	62	60	—	—	24
23	—	108	41–42	78	40–42	65–67	75–76	61	59	—	—	23
22	—	—	38–40	76–77	37–39	62–64	74	59–60	57–58	—	—	22
21	—	107	35–37	75	34–36	59–61	72–73	57–58	55–56	—	—	21
20	40	—	33–34	74	31–33	55–58	71	56	50–54	—	72	20
19	39	104–106	30–32	73	28–30	53–54	69–70	54–55	47–49	—	71	19
18	38	103	28–29	72	25–27	49–52	67–68	52–53	44–46	—	—	18
17	37	101–102	26–27	70–71	22–24	45–48	65–66	50–51	41–43	80	70	17
16	36	99–100	24–25	68–69	19–21	41–44	62–64	48–49	37–40	79	69	16
15	35	96–98	22–23	66–67	17–18	36–40	58–61	46–47	33–36	—	68	15
14	33–34	92–95	20–21	64–65	14–16	31–35	54–57	43–45	28–32	78	66–67	14
13	32	88–91	18–19	62–63	12–13	25–30	51–53	40–42	24–27	77	64–65	13
12	30–31	83–87	16–17	59–61	9–11	21–24	47–50	37–39	20–23	75–76	61–63	12
11	27–29	77–82	13–15	54–58	7–8	17–20	42–46	33–36	16–19	72–74	56–60	11
10	25–26	69–76	11–12	48–53	5–6	13–16	37–41	29–32	12–15	68–71	50–55	10
9	22–24	59–68	8–10	42–47	4	11–12	32–36	24–28	8–11	62–67	42–49	9
8	18–21	47–58	4–7	33–41	2–3	9–10	27–31	18–23	5–7	45–61	32–41	8
7	13–17	31–46	0–3	22–32	0–1	7–8	21–26	13–17	0–4	29–44	18–31	7
6	11–12	26–30	—	17–21	—	5–6	18–20	10–12	—	22–28	16–17	6
5	9–10	16–25	—	9–16	—	3–4	12–17	4–9	—	10–21	13–15	5
4	7–8	6–15	—	2–8	—	1–2	7–11	0–3	—	0–9	10–12	4
3	4–6	4–5	—	0–1	—	0	2–6	—	—	—	6–9	3
2	0–3	2–3	—	—	—	—	0–1	—	—	—	2–5	2
1	—	0–1	—	—	—	—	—	—	—	—	0–1	1
90% Conf. Int.	2	2	2	2	2	2	2	2	1	2	2	90% Conf. Int.

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SUBDOMAIN *v*-Scale Scores

6:6–6:8

	Communication			Daily Living Skills			Socialization			Motor Skills		
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	*v*-Scale Score
	Raw Score											
24	—	—	43–50	79–82	43–48	68–88	—	62	60	—	—	24
23	—	108	41–42	78	40–42	65–67	75–76	61	59	—	—	23
22	—	—	38–40	76–77	37–39	62–64	74	59–60	57–58	—	—	22
21	—	107	35–37	75	34–36	59–61	72–73	57–58	55–56	—	—	21
20	40	—	33–34	74	31–33	55–58	71	56	50–54	—	72	20
19	39	104–106	30–32	73	28–30	53–54	69–70	54–55	47–49	—	71	19
18	38	103	28–29	72	25–27	49–52	67–68	52–53	44–46	—	—	18
17	37	101–102	26–27	70–71	22–24	45–48	65–66	50–51	41–43	80	70	17
16	36	99–100	24–25	68–69	19–21	41–44	62–64	48–49	37–40	79	69	16
15	35	96–98	22–23	66–67	17–18	36–40	58–61	46–47	33–36	—	68	15
14	33–34	92–95	20–21	64–65	14–16	31–35	54–57	43–45	28–32	78	66–67	14
13	32	88–91	18–19	62–63	12–13	25–30	51–53	40–42	24–27	77	64–65	13
12	30–31	83–87	16–17	59–61	9–11	21–24	47–50	37–39	20–23	75–76	61–63	12
11	27–29	77–82	13–15	54–58	7–8	17–20	42–46	33–36	16–19	72–74	56–60	11
10	25–26	69–76	11–12	48–53	5–6	13–16	37–41	29–32	12–15	68–71	50–55	10
9	22–24	59–68	8–10	42–47	4	11–12	32–36	24–28	8–11	62–67	42–49	9
8	18–21	47–58	4–7	33–41	2–3	9–10	27–31	18–23	5–7	45–61	32–41	8
7	13–17	31–46	0–3	22–32	0–1	7–8	21–26	13–17	0–4	29–44	18–31	7
6	11–12	26–30	—	17–21	—	5–6	18–20	10–12	—	22–28	16–17	6
5	9–10	16–25	—	9–16	—	3–4	12–17	4–9	—	10–21	13–15	5
4	7–8	6–15	—	2–8	—	1–2	7–11	0–3	—	0–9	10–12	4
3	4–6	4–5	—	0–1	—	0	2–6	—	—	—	6–9	3
2	0–3	2–3	—	—	—	—	0–1	—	—	—	2–5	2
1	—	0–1	—	—	—	—	—	—	—	—	0–1	1
90% Conf. Int.	2	2	2	2	2	2	2	2	1	2	2	90% Conf. Int.

6:9–6:11

	Communication			Daily Living Skills			Socialization			Motor Skills		
v-Scale Score	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	*v*-Scale Score
	Raw Score											
24	—	—	43–50	79–82	45–48	70–88	—	62	60	—	—	24
23	—	108	41–42	78	42–44	68–69	75–76	61	59	—	—	23
22	—	—	39–40	76–77	39–41	65–67	74	59–60	57–58	—	—	22
21	—	107	37–38	75	36–38	62–64	73	57–58	55–56	—	—	21
20	40	—	35–36	74	33–35	58–61	71–72	56	51–54	—	72	20
19	39	106	33–34	73	29–32	55–57	69–70	54–55	48–50	—	—	19
18	38	104–105	30–32	72	26–28	52–54	67–68	53	44–47	—	71	18
17	37	102–103	29	70–71	23–25	49–51	65–66	51–52	41–43	—	—	17
16	36	100–101	27–28	68–69	20–22	45–48	62–64	49–50	37–40	80	70	16
15	35	97–99	25–26	66–67	17–19	41–44	58–61	47–48	33–36	79	69	15
14	33–34	93–96	23–24	64–65	14–16	36–40	54–57	44–46	28–32	78	67–68	14
13	32	88–92	20–22	62–63	12–13	31–35	51–53	41–43	24–27	77	65–66	13
12	30–31	83–87	18–19	59–61	9–11	25–30	47–50	37–40	20–23	75–76	61–64	12
11	27–29	77–82	16–17	54–58	7–8	21–24	42–46	33–36	16–19	72–74	56–60	11
10	25–26	69–76	13–15	48–53	5–6	17–20	37–41	29–32	12–15	68–71	50–55	10
9	22–24	59–68	8–12	42–47	4	12–16	32–36	24–28	8–11	62–67	42–49	9
8	18–21	47–58	4–7	33–41	2–3	9–11	27–31	18–23	5–7	45–61	32–41	8
7	13–17	31–46	0–3	22–32	0–1	7–8	21–26	13–17	0–4	29–44	18–31	7
6	11–12	26–30	—	17–21	—	5–6	18–20	10–12	—	22–28	16–17	6
5	9–10	16–25	—	9–16	—	3–4	12–17	4–9	—	10–21	13–15	5
4	7–8	6–15	—	2–8	—	1–2	7–11	0–3	—	0–9	10–12	4
3	4–6	4–5	—	0–1	—	0	2–6	—	—	—	6–9	3
2	0–3	2–3	—	—	—	—	0–1	—	—	—	2–5	2
1	—	0–1	—	—	—	—	—	—	—	—	0–1	1
90% Conf. Int.	2	2	2	2	2	2	2	2	1	2	2	90% Conf. Int.

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7:0–7:2

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		v-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	—	46–50	80–82	46–48	72–88	—	62	—	—	—	24
23	—	—	43–45	78–79	43–45	68–71	76	61	60	—	—	23
22	—	108	41–42	77	40–42	65–67	75	60	58–59	—	—	22
21	—	—	38–40	76	37–39	62–64	74	58–59	56–57	—	—	21
20	—	107	35–37	75	34–36	59–61	72–73	57	54–55	—	—	20
19	40	—	34	74	31–33	55–58	71	55–56	50–53	—	—	19
18	39	104–106	32–33	73	28–30	53–54	69–70	54	47–49	—	—	18
17	38	103	30–31	72	25–27	49–52	67–68	52–53	44–46	—	—	17
16	37	101–102	29	70–71	22–24	45–48	65–66	50–51	40–43	—	—	16
15	36	99–100	27–28	68–69	19–21	43–44	62–64	48–49	36–39	—	—	15
14	34–35	96–98	25–26	66–67	17–18	38–42	58–61	46–47	32–35	—	—	14
13	33	92–95	23–24	64–65	14–16	33–37	54–57	43–45	27–31	—	—	13
12	31–32	88–91	20–22	61–63	11–13	28–32	50–53	40–42	23–26	—	—	12
11	28–30	82–87	16–19	57–60	9–10	23–27	46–49	37–39	19–22	—	—	11
10	26–27	74–81	13–15	51–56	6–8	17–22	40–45	33–36	15–18	—	—	10
9	22–25	64–73	11–12	43–50	4–5	13–16	35–39	28–32	11–14	—	—	9
8	18–21	51–63	8–10	33–42	2–3	11–12	29–34	22–27	5–10	—	—	8
7	13–17	34–50	2–7	23–32	0–1	7–10	22–28	15–21	1–4	—	—	7
6	11–12	27–33	0–1	18–22	—	5–6	18–21	11–14	0	—	—	6
5	9–10	16–26	—	9–17	—	3–4	12–17	5–10	—	—	—	5
4	7–8	6–15	—	2–8	—	1–2	7–11	0–4	—	—	—	4
3	4–6	4–5	—	0–1	—	0	2–6	—	—	—	—	3
2	0–3	2–3	—	—	—	—	0–1	—	—	—	—	2
1	—	0–1	—	—	—	—	—	—	—	—	—	1
90% Conf. Int.	2	2	2	2	2	2	2	2	2	—	—	90% Conf. Int.

7:3–7:5

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		v-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	—	46–50	80–82	46–48	72–88	—	62	—	—	—	24
23	—	—	43–45	78–79	45	70–71	76	61	60	—	—	23
22	—	108	41–42	77	42–44	68–69	75	60	58–59	—	—	22
21	—	—	39–40	76	39–41	65–67	74	58–59	56–57	—	—	21
20	—	107	37–38	75	36–38	62–64	73	57	54–55	—	—	20
19	40	—	35–36	74	33–35	58–61	71–72	55–56	51–53	—	—	19
18	39	106	34	73	29–32	55–57	69–70	54	48–50	—	—	18
17	38	104–105	32–33	72	26–28	52–54	67–68	53	44–47	—	—	17
16	37	102–103	30–31	70–71	23–25	49–51	65–66	51–52	40–43	—	—	16
15	36	100–101	29	68–69	20–22	45–48	62–64	49–50	36–39	—	—	15
14	34–35	97–99	27–28	66–67	17–19	43–44	58–61	47–48	32–35	—	—	14
13	33	93–96	25–26	64–65	14–16	38–42	54–57	44–46	27–31	—	—	13
12	31–32	88–92	23–24	61–63	11–13	33–37	50–53	41–43	23–26	—	—	12
11	28–30	82–87	20–22	57–60	9–10	28–32	46–49	37–40	19–22	—	—	11
10	26–27	74–81	16–19	51–56	6–8	23–27	40–45	33–36	15–18	—	—	10
9	22–25	64–73	13–15	43–50	4–5	17–22	35–39	28–32	11–14	—	—	9
8	18–21	51–63	8–12	33–42	2–3	12–16	29–34	22–27	5–10	—	—	8
7	13–17	34–50	2–7	23–32	0–1	7–11	22–28	15–21	1–4	—	—	7
6	11–12	27–33	0–1	18–22	—	5–6	18–21	11–14	0	—	—	6
5	9–10	16–26	—	9–17	—	3–4	12–17	5–10	—	—	—	5
4	7–8	6–15	—	2–8	—	1–2	7–11	0–4	—	—	—	4
3	4–6	4–5	—	0–1	—	0	2–6	—	—	—	—	3
2	0–3	2–3	—	—	—	—	0–1	—	—	—	—	2
1	—	0–1	—	—	—	—	—	—	—	—	—	1
90% Conf. Int.	2	2	2	2	2	2	2	2	2	—	—	90% Conf. Int.

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SUBDOMAIN *v*-Scale Scores

7:6–7:8

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		*v*-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	—	46–50	80–82	46–48	72–88	—	62	—	—	—	24
23	—	—	43–45	78–79	45	70–71	76	61	60	—	—	23
22	—	108	41–42	77	42–44	68–69	75	60	58–59	—	—	22
21	—	—	39–40	76	39–41	65–67	74	58–59	56–57	—	—	21
20	—	107	37–38	75	36–38	62–64	73	57	54–55	—	—	20
19	40	—	35–36	74	33–35	58–61	71–72	55–56	51–53	—	—	19
18	39	106	34	73	29–32	55–57	69–70	54	48–50	—	—	18
17	38	104–105	32–33	72	26–28	52–54	67–68	53	44–47	—	—	17
16	37	102–103	30–31	70–71	23–25	49–51	65–66	51–52	40–43	—	—	16
15	36	100–101	29	68–69	20–22	45–48	62–64	49–50	36–39	—	—	15
14	34–35	97–99	27–28	66–67	17–19	43–44	58–61	47–48	32–35	—	—	14
13	33	93–96	25–26	64–65	14–16	38–42	54–57	44–46	27–31	—	—	13
12	31–32	88–92	23–24	61–63	11–13	33–37	50–53	41–43	23–26	—	—	12
11	28–30	82–87	20–22	57–60	9–10	28–32	46–49	37–40	19–22	—	—	11
10	26–27	74–81	16–19	51–56	6–8	23–27	40–45	33–36	15–18	—	—	10
9	22–25	64–73	13–15	43–50	4–5	17–22	35–39	28–32	11–14	—	—	9
8	18–21	51–63	8–12	33–42	2–3	12–16	29–34	22–27	5–10	—	—	8
7	13–17	34–50	2–7	23–32	0–1	7–11	22–28	15–21	1–4	—	—	7
6	11–12	27–33	0–1	18–22	—	5–6	18–21	11–14	0	—	—	6
5	9–10	16–26	—	9–17	—	3–4	12–17	5–10	—	—	—	5
4	7–8	6–15	—	2–8	—	1–2	7–11	0–4	—	—	—	4
3	4–6	4–5	—	0–1	—	0	2–6	—	—	—	—	3
2	0–3	2–3	—	—	—	—	0–1	—	—	—	—	2
1	—	0–1	—	—	—	—	—	—	—	—	—	1
90% Conf. Int.	2	2	2	2	2	2	2	2	2	—	—	90% Conf. Int.

7:9–7:11

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		*v*-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	—	48–50	80–82	46–48	72–88	—	62	—	—	—	24
23	—	—	46–47	78–79	45	71	76	61	60	—	—	23
22	—	108	43–45	77	42–44	69–70	75	60	58–59	—	—	22
21	—	—	41–42	76	40–41	67–68	74	58–59	56–57	—	—	21
20	—	107	39–40	75	37–39	65–66	73	57	54–55	—	—	20
19	40	—	37–38	74	34–36	61–64	71–72	56	51–53	—	—	19
18	39	106	35–36	73	31–33	58–60	69–70	55	48–50	—	—	18
17	38	105	34	72	27–30	55–57	67–68	53–54	44–47	—	—	17
16	37	103–104	32–33	70–71	24–26	51–54	65–66	51–52	40–43	—	—	16
15	36	100–102	30–31	68–69	20–23	49–50	62–64	49–50	36–39	—	—	15
14	34–35	97–99	29	66–67	17–19	45–48	58–61	47–48	32–35	—	—	14
13	33	93–96	27–28	64–65	14–16	40–44	54–57	44–46	27–31	—	—	13
12	31–32	88–92	25–26	61–63	11–13	34–39	50–53	41–43	23–26	—	—	12
11	28–30	82–87	22–24	57–60	9–10	28–33	46–49	37–40	19–22	—	—	11
10	26–27	74–81	18–21	51–56	6–8	23–27	40–45	33–36	15–18	—	—	10
9	22–25	64–73	13–17	43–50	4–5	17–22	35–39	28–32	11–14	—	—	9
8	18–21	51–63	8–12	33–42	2–3	12–16	29–34	22–27	5–10	—	—	8
7	13–17	34–50	2–7	23–32	0–1	7–11	22–28	15–21	1–4	—	—	7
6	11–12	27–33	0–1	18–22	—	5–6	18–21	11–14	0	—	—	6
5	9–10	16–26	—	9–17	—	3–4	12–17	5–10	—	—	—	5
4	7–8	6–15	—	2–8	—	1–2	7–11	0–4	—	—	—	4
3	4–6	4–5	—	0–1	—	0	2–6	—	—	—	—	3
2	0–3	2–3	—	—	—	—	0–1	—	—	—	—	2
1	—	0–1	—	—	—	—	—	—	—	—	—	1
90% Conf. Int.	2	2	2	2	2	2	2	2	2	—	—	90% Conf. Int.

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8:0–8:2

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		v-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	—	49–50	80–82	46–48	74–88	—	—	—	—	—	24
23	—	—	46–48	78–79	45	72–73	76	61–62	60	—	—	23
22	—	—	44–45	77	44	70–71	75	60	59	—	—	22
21	—	108	42–43	76	42–43	68–69	74	59	58	—	—	21
20	—	—	40–41	75	39–41	65–67	73	58	56–57	—	—	20
19	—	107	38–39	74	36–38	62–64	72	57	54–55	—	—	19
18	40	—	37	73	33–35	58–61	71	55–56	51–53	—	—	18
17	39	106	35–36	—	29–32	55–57	69–70	54	48–50	—	—	17
16	38	104–105	34	72	26–28	52–54	67–68	53	44–47	—	—	16
15	37	102–103	32–33	70–71	23–25	49–51	64–66	51–52	40–43	—	—	15
14	36	100–101	30–31	68–69	20–22	46–48	61–63	49–50	35–39	—	—	14
13	34–35	97–99	28–29	66–67	17–19	43–45	58–60	47–48	30–34	—	—	13
12	32–33	92–96	25–27	63–65	13–16	38–42	54–57	44–46	25–29	—	—	12
11	29–31	86–91	23–24	60–62	10–12	33–37	49–53	40–43	20–24	—	—	11
10	26–28	77–85	20–22	53–59	8–9	27–32	44–48	35–39	16–19	—	—	10
9	23–25	65–76	16–19	45–52	5–7	20–26	37–43	30–34	11–15	—	—	9
8	19–22	51–64	13–15	34–44	3–4	14–19	30–36	24–29	5–10	—	—	8
7	14–18	37–50	7–12	24–33	1–2	8–13	23–29	17–23	2–4	—	—	7
6	11–13	30–36	4–6	19–23	0	5–7	19–22	13–16	0–1	—	—	6
5	9–10	16–29	0–3	9–18	—	3–4	12–18	7–12	—	—	—	5
4	7–8	6–15	—	2–8	—	1–2	7–11	1–6	—	—	—	4
3	4–6	4–5	—	0–1	—	0	2–6	0	—	—	—	3
2	0–3	2–3	—	—	—	—	0–1	—	—	—	—	2
1	—	0–1	—	—	—	—	—	—	—	—	—	1
90% Conf. Int.	2	2	2	2	2	2	2	2	2	—	—	90% Conf. Int.

8:3–8:5

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		v-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	—	49–50	80–82	46–48	74–88	—	—	—	—	—	24
23	—	—	48	78–79	45	72–73	76	61–62	60	—	—	23
22	—	—	46–47	77	44	71	75	60	59	—	—	22
21	—	108	44–45	76	42–43	69–70	74	59	58	—	—	21
20	—	—	42–43	75	40–41	67–68	73	58	56–57	—	—	20
19	—	107	40–41	74	37–39	65–66	72	57	54–55	—	—	19
18	40	—	38–39	73	34–36	61–64	71	56	51–53	—	—	18
17	39	106	37	—	31–33	58–60	69–70	55	48–50	—	—	17
16	38	105	35–36	72	27–30	55–57	67–68	53–54	44–47	—	—	16
15	37	103–104	34	70–71	24–26	51–54	64–66	51–52	40–43	—	—	15
14	36	100–102	32–33	68–69	20–23	49–50	61–63	49–50	35–39	—	—	14
13	34–35	97–99	30–31	66–67	17–19	46–48	58–60	47–48	30–34	—	—	13
12	32–33	92–96	28–29	63–65	13–16	40–45	54–57	44–46	25–29	—	—	12
11	29–31	86–91	25–27	60–62	10–12	34–39	49–53	40–43	20–24	—	—	11
10	26–28	77–85	22–24	53–59	8–9	27–33	44–48	35–39	16–19	—	—	10
9	23–25	65–76	18–21	45–52	5–7	20–26	37–43	30–34	11–15	—	—	9
8	19–22	51–64	13–17	34–44	3–4	14–19	30–36	24–29	5–10	—	—	8
7	14–18	37–50	7–12	24–33	1–2	8–13	23–29	17–23	2–4	—	—	7
6	11–13	30–36	4–6	19–23	0	5–7	19–22	13–16	0–1	—	—	6
5	9–10	16–29	0–3	9–18	—	3–4	12–18	7–12	—	—	—	5
4	7–8	6–15	—	2–8	—	1–2	7–11	1–6	—	—	—	4
3	4–6	4–5	—	0–1	—	0	2–6	0	—	—	—	3
2	0–3	2–3	—	—	—	—	0–1	—	—	—	—	2
1	—	0–1	—	—	—	—	—	—	—	—	—	1
90% Conf. Int.	2	2	2	2	2	2	2	2	2	—	—	90% Conf. Int.

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SUBDOMAIN v-Scale Scores

8:6–8:8

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		v-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	—	49–50	80–82	46–48	74–88	—	—	—	—	—	24
23	—	—	48	78–79	45	72–73	76	61–62	60	—	—	23
22	—	—	46–47	77	44	71	75	60	59	—	—	22
21	—	108	44–45	76	42–43	69–70	74	59	58	—	—	21
20	—	—	42–43	75	40–41	67–68	73	58	56–57	—	—	20
19	—	107	40–41	74	37–39	65–66	72	57	54–55	—	—	19
18	40	—	38–39	73	34–36	61–64	71	56	51–53	—	—	18
17	39	106	37	—	31–33	58–60	69–70	55	48–50	—	—	17
16	38	105	35–36	72	27–30	55–57	67–68	53–54	44–47	—	—	16
15	37	103–104	34	70–71	24–26	51–54	64–66	51–52	40–43	—	—	15
14	36	100–102	32–33	68–69	20–23	49–50	61–63	49–50	35–39	—	—	14
13	34–35	97–99	30–31	66–67	17–19	46–48	58–60	47–48	30–34	—	—	13
12	32–33	92–96	28–29	63–65	13–16	40–45	54–57	44–46	25–29	—	—	12
11	29–31	86–91	25–27	60–62	10–12	34–39	49–53	40–43	20–24	—	—	11
10	26–28	77–85	22–24	53–59	8–9	27–33	44–48	35–39	16–19	—	—	10
9	23–25	65–76	18–21	45–52	5–7	20–26	37–43	30–34	11–15	—	—	9
8	19–22	51–64	13–17	34–44	3–4	14–19	30–36	24–29	5–10	—	—	8
7	14–18	37–50	7–12	24–33	1–2	8–13	23–29	17–23	2–4	—	—	7
6	11–13	30–36	4–6	19–23	0	5–7	19–22	13–16	0–1	—	—	6
5	9–10	16–29	0–3	9–18	—	3–4	12–18	7–12	—	—	—	5
4	7–8	6–15	—	2–8	—	1–2	7–11	1–6	—	—	—	4
3	4–6	4–5	—	0–1	—	0	2–6	0	—	—	—	3
2	0–3	2–3	—	—	—	—	0–1	—	—	—	—	2
1	—	0–1	—	—	—	—	—	—	—	—	—	1
90% Conf. Int.	2	2	2	2	2	2	2	2	2	—	—	90% Conf. Int.

8:9–8:11

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		v-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	—	49–50	80–82	47–48	74–88	—	—	—	—	—	24
23	—	—	48	79	45–46	72–73	76	61–62	60	—	—	23
22	—	—	46–47	78	44	71	75	60	59	—	—	22
21	—	108	44–45	77	42–43	69–70	74	59	58	—	—	21
20	—	—	43	76	40–41	67–68	73	58	56–57	—	—	20
19	—	107	42	75	37–39	65–66	72	57	54–55	—	—	19
18	40	—	40–41	73–74	34–36	63–64	71	56	51–53	—	—	18
17	39	106	38–39	—	31–33	61–62	69–70	55	48–50	—	—	17
16	38	105	37	72	27–30	58–60	67–68	54	44–47	—	—	16
15	37	104	35–36	70–71	24–26	55–57	65–66	53	40–43	—	—	15
14	36	102–103	34	68–69	20–23	51–54	62–64	50–52	35–39	—	—	14
13	34–35	98–101	31–33	67	17–19	48–50	58–61	47–49	30–34	—	—	13
12	32–33	92–97	28–30	63–66	14–16	42–47	54–57	44–46	25–29	—	—	12
11	29–31	86–91	25–27	60–62	11–13	35–41	49–53	40–43	20–24	—	—	11
10	26–28	77–85	22–24	53–59	9–10	27–34	44–48	35–39	16–19	—	—	10
9	23–25	65–76	18–21	45–52	7–8	20–26	37–43	30–34	11–15	—	—	9
8	19–22	51–64	13–17	34–44	5–6	14–19	30–36	24–29	5–10	—	—	8
7	14–18	37–50	7–12	24–33	1–4	8–13	23–29	17–23	2–4	—	—	7
6	11–13	30–36	4–6	19–23	0	5–7	19–22	13–16	0–1	—	—	6
5	9–10	16–29	0–3	9–18	—	3–4	12–18	7–12	—	—	—	5
4	7–8	6–15	—	2–8	—	1–2	7–11	1–6	—	—	—	4
3	4–6	4–5	—	0–1	—	0	2–6	0	—	—	—	3
2	0–3	2–3	—	—	—	—	0–1	—	—	—	—	2
1	—	0–1	—	—	—	—	—	—	—	—	—	1
90% Conf. Int.	2	2	2	2	2	2	2	2	2	—	—	90% Conf. Int.

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9:0–9:3

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		v-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	—	49–50	82	—	77–88	—	—	—	—	—	24
23	—	—	48	80–81	46–48	74–76	76	—	60	—	—	23
22	—	—	47	78–79	45	71–73	—	61–62	59	—	—	22
21	—	—	45–46	77	44	70	75	60	58	—	—	21
20	—	108	44	76	42–43	69	74	59	57	—	—	20
19	—	—	42–43	75	40–41	67–68	73	58	55–56	—	—	19
18	40	107	41	74	37–39	64–66	72	57	53–54	—	—	18
17	—	—	39–40	73	34–36	61–63	71	56	50–52	—	—	17
16	39	106	38	72	30–33	58–60	69–70	55	47–49	—	—	16
15	38	105	36–37	71	27–29	55–57	67–68	53–54	44–46	—	—	15
14	37	103–104	34–35	70	23–26	53–54	64–66	51–52	40–43	—	—	14
13	35–36	100–102	32–33	68–69	20–22	49–52	61–63	49–50	35–39	—	—	13
12	33–34	97–99	30–31	66–67	17–19	46–48	58–60	47–48	30–34	—	—	12
11	31–32	92–96	28–29	63–65	13–16	40–45	53–57	42–46	24–29	—	—	11
10	28–30	82–91	25–27	58–62	10–12	34–39	47–52	37–41	18–23	—	—	10
9	25–27	68–81	20–24	50–57	8–9	26–33	40–46	31–36	11–17	—	—	9
8	22–24	51–67	15–19	39–49	5–7	18–25	32–39	26–30	6–10	—	—	8
7	19–21	40–50	9–14	27–38	3–4	9–17	24–31	21–25	3–5	—	—	7
6	17–18	32–39	6–8	21–26	1–2	5–8	20–23	18–20	0–2	—	—	6
5	14–16	18–31	0–5	11–20	0	3–4	12–19	12–17	—	—	—	5
4	11–13	6–17	—	2–10	—	1–2	7–11	7–11	—	—	—	4
3	7–10	4–5	—	0–1	—	0	2–6	0–6	—	—	—	3
2	3–6	2–3	—	—	—	—	0–1	—	—	—	—	2
1	0–2	0–1	—	—	—	—	—	—	—	—	—	1
90% Conf. Int.	2	2	2	2	2	2	2	3	2	—	—	90% Conf. Int.

9:4–9:7

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		v-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	—	49–50	82	—	77–88	—	—	—	—	—	24
23	—	—	48	80–81	47–48	74–76	76	—	60	—	—	23
22	—	—	47	79	45–46	71–73	—	61–62	59	—	—	22
21	—	—	45–46	78	44	70	75	60	58	—	—	21
20	—	108	44	77	42–43	69	74	59	57	—	—	20
19	—	—	43	76	40–41	67–68	73	58	55–56	—	—	19
18	40	107	42	75	37–39	64–66	72	57	53–54	—	—	18
17	—	—	41	73–74	34–36	63	71	56	50–52	—	—	17
16	39	106	39–40	72	30–33	61–62	69–70	55	47–49	—	—	16
15	38	105	38	71	27–29	58–60	67–68	54	44–46	—	—	15
14	37	104	36–37	70	23–26	55–57	65–66	53	40–43	—	—	14
13	35–36	102–103	34–35	68–69	20–22	53–54	62–64	50–52	35–39	—	—	13
12	33–34	98–101	31–33	67	17–19	48–52	58–61	47–49	30–34	—	—	12
11	31–32	92–97	28–30	63–66	14–16	42–47	53–57	42–46	24–29	—	—	11
10	28–30	82–91	25–27	58–62	11–13	35–41	47–52	37–41	18–23	—	—	10
9	25–27	68–81	20–24	50–57	9–10	26–34	40–46	31–36	11–17	—	—	9
8	22–24	51–67	15–19	39–49	7–8	18–25	32–39	26–30	6–10	—	—	8
7	19–21	40–50	9–14	27–38	5–6	9–17	24–31	21–25	3–5	—	—	7
6	17–18	32–39	6–8	21–26	3–4	5–8	20–23	18–20	0–2	—	—	6
5	14–16	18–31	0–5	11–20	1–2	3–4	12–19	12–17	—	—	—	5
4	11–13	6–17	—	2–10	0	1–2	7–11	7–11	—	—	—	4
3	7–10	4–5	—	0–1	—	0	2–6	0–6	—	—	—	3
2	3–6	2–3	—	—	—	—	0–1	—	—	—	—	2
1	0–2	0–1	—	—	—	—	—	—	—	—	—	1
90% Conf. Int.	2	2	2	3	2	2	2	3	2	—	—	90% Conf. Int.

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SUBDOMAIN *v*-Scale Scores

9:8–9:11

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		*v*-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	—	50	82	—	77–88	—	—	—	—	—	24
23	—	—	49	80–81	47–48	74–76	76	—	60	—	—	23
22	—	—	48	79	45–46	71–73	—	61–62	59	—	—	22
21	—	—	47	78	44	70	75	60	58	—	—	21
20	—	108	45–46	77	42–43	69	74	59	57	—	—	20
19	—	—	44	76	40–41	67–68	73	58	55–56	—	—	19
18	40	107	43	75	38–39	65–66	72	57	53–54	—	—	18
17	—	—	42	73–74	35–37	63–64	71	56	50–52	—	—	17
16	39	106	41	72	32–34	61–62	69–70	55	47–49	—	—	16
15	38	105	39–40	71	28–31	59–60	67–68	54	44–46	—	—	15
14	37	104	37–38	70	24–27	57–58	65–66	53	40–43	—	—	14
13	35–36	102–103	35–36	68–69	20–23	53–56	62–64	50–52	35–39	—	—	13
12	33–34	98–101	32–34	67	17–19	49–52	58–61	47–49	30–34	—	—	12
11	31–32	92–97	28–31	63–66	14–16	43–48	53–57	42–46	24–29	—	—	11
10	28–30	82–91	25–27	58–62	11–13	36–42	47–52	37–41	20–23	—	—	10
9	25–27	68–81	20–24	50–57	9–10	27–35	40–46	31–36	11–19	—	—	9
8	22–24	51–67	15–19	39–49	7–8	18–26	32–39	26–30	6–10	—	—	8
7	19–21	40–50	9–14	27–38	5–6	9–17	24–31	21–25	3–5	—	—	7
6	17–18	32–39	6–8	21–26	3–4	5–8	20–23	18–20	0–2	—	—	6
5	14–16	18–31	0–5	11–20	1–2	3–4	12–19	12–17	—	—	—	5
4	11–13	6–17	—	2–10	0	1–2	7–11	7–11	—	—	—	4
3	7–10	4–5	—	0–1	—	0	2–6	0–6	—	—	—	3
2	3–6	2–3	—	—	—	—	0–1	—	—	—	—	2
1	0–2	0–1	—	—	—	—	—	—	—	—	—	1
90% Conf. Int.	2	2	2	3	2	2	2	3	2	—	—	90% Conf. Int.

10:0–10:3

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		*v*-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	—	—	82	—	78–88	—	—	—	—	—	24
23	—	—	49–50	81	—	76–77	—	—	—	—	—	23
22	—	—	48	80	46–48	73–75	76	62	60	—	—	22
21	—	—	47	79	44–45	71–72	75	61	59	—	—	21
20	—	—	45–46	78	43	70	74	60	58	—	—	20
19	—	108	44	77	42	69	73	59	57	—	—	19
18	—	—	43	76	40–41	66–68	72	58	55–56	—	—	18
17	40	107	42	75	37–39	64–65	71	57	53–54	—	—	17
16	—	—	41	73–74	34–36	63	69–70	56	49–52	—	—	16
15	39	106	39–40	72	30–33	61–62	68	55	45–48	—	—	15
14	38	105	38	71	27–29	58–60	66–67	54	41–44	—	—	14
13	36–37	103–104	36–37	70	23–26	55–57	64–65	52–53	36–40	—	—	13
12	35	100–102	34–35	68–69	20–22	53–54	61–63	49–51	32–35	—	—	12
11	33–34	95–99	31–33	65–67	16–19	48–52	57–60	46–48	27–31	—	—	11
10	30–32	89–94	28–30	61–64	13–15	42–47	53–56	42–45	23–26	—	—	10
9	27–29	74–88	23–27	55–60	11–12	35–41	47–52	37–41	18–22	—	—	9
8	24–26	56–73	18–22	47–54	9–10	26–34	40–46	31–36	10–17	—	—	8
7	21–23	43–55	10–17	37–46	7–8	15–25	31–39	24–30	6–9	—	—	7
6	19–20	35–42	6–9	32–36	5–6	10–14	27–30	20–23	3–5	—	—	6
5	16–18	20–34	0–5	24–31	3–4	3–9	19–26	14–19	0–2	—	—	5
4	13–15	6–19	—	16–23	1–2	1–2	12–18	8–13	—	—	—	4
3	9–12	4–5	—	6–15	0	0	3–11	1–7	—	—	—	3
2	5–8	2–3	—	0–5	—	—	0–2	0	—	—	—	2
1	0–4	0–1	—	—	—	—	—	—	—	—	—	1
90% Conf. Int.	2	2	2	3	2	2	2	2	2	—	—	90% Conf. Int.

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10:4–10:7

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		v-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	—	—	82	—	78–88	—	—	—	—	—	24
23	—	—	50	81	—	76–77	—	—	—	—	—	23
22	—	—	49	80	46–48	73–75	76	62	60	—	—	22
21	—	—	48	79	44–45	71–72	75	61	59	—	—	21
20	—	—	47	78	43	70	74	60	58	—	—	20
19	—	108	45–46	77	42	69	73	59	57	—	—	19
18	—	—	44	76	40–41	66–68	72	58	55–56	—	—	18
17	40	107	43	75	38–39	65	71	57	53–54	—	—	17
16	—	—	42	73–74	35–37	63–64	69–70	56	49–52	—	—	16
15	39	106	41	72	32–34	61–62	68	55	45–48	—	—	15
14	38	105	39–40	71	28–31	59–60	66–67	54	41–44	—	—	14
13	36–37	103–104	37–38	70	24–27	57–58	64–65	52–53	36–40	—	—	13
12	35	100–102	35–36	68–69	20–23	53–56	61–63	49–51	32–35	—	—	12
11	33–34	95–99	32–34	65–67	16–19	49–52	57–60	46–48	27–31	—	—	11
10	30–32	89–94	28–31	61–64	13–15	43–48	53–56	42–45	23–26	—	—	10
9	27–29	74–88	23–27	55–60	11–12	36–42	47–52	37–41	20–22	—	—	9
8	24–26	56–73	18–22	47–54	9–10	27–35	40–46	31–36	10–19	—	—	8
7	21–23	43–55	10–17	37–46	7–8	15–26	31–39	24–30	6–9	—	—	7
6	19–20	35–42	6–9	32–36	5–6	10–14	27–30	20–23	3–5	—	—	6
5	16–18	20–34	0–5	24–31	3–4	3–9	19–26	14–19	0–2	—	—	5
4	13–15	6–19	—	16–23	1–2	1–2	12–18	8–13	—	—	—	4
3	9–12	4–5	—	6–15	0	0	3–11	1–7	—	—	—	3
2	5–8	2–3	—	0–5	—	—	0–2	0	—	—	—	2
1	0–4	0–1	—	—	—	—	—	—	—	—	—	1
90% Conf. Int.	2	2	2	3	2	2	2	2	2	—	—	90% Conf. Int.

10:8–10:11

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		v-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	—	—	82	—	81–88	—	—	—	—	—	24
23	—	—	50	81	—	78–80	—	—	—	—	—	23
22	—	—	49	80	48	75–77	76	62	60	—	—	22
21	—	—	—	79	46–47	72–74	75	61	59	—	—	21
20	—	—	48	78	44–45	70–71	74	60	58	—	—	20
19	—	—	47	77	43	69	73	59	57	—	—	19
18	—	108	45–46	76	40–42	66–68	72	58	55–56	—	—	18
17	40	—	44	75	38–39	65	71	57	53–54	—	—	17
16	—	107	43	73–74	35–37	63–64	69–70	56	49–52	—	—	16
15	39	106	41–42	72	32–34	61–62	68	55	45–48	—	—	15
14	38	105	39–40	71	28–31	59–60	66–67	54	41–44	—	—	14
13	36–37	103–104	37–38	70	25–27	57–58	64–65	52–53	36–40	—	—	13
12	35	100–102	35–36	68–69	22–24	53–56	61–63	49–51	32–35	—	—	12
11	33–34	95–99	32–34	65–67	18–21	49–52	57–60	46–48	27–31	—	—	11
10	30–32	89–94	28–31	63–64	16–17	44–48	53–56	42–45	23–26	—	—	10
9	27–29	76–88	23–27	56–62	13–15	36–43	47–52	38–41	20–22	—	—	9
8	24–26	56–75	18–22	48–55	9–12	27–35	40–46	31–37	10–19	—	—	8
7	21–23	43–55	10–17	37–47	7–8	15–26	31–39	24–30	6–9	—	—	7
6	19–20	35–42	6–9	32–36	5–6	10–14	27–30	20–23	3–5	—	—	6
5	16–18	20–34	0–5	24–31	3–4	3–9	19–26	14–19	0–2	—	—	5
4	13–15	6–19	—	16–23	1–2	1–2	12–18	8–13	—	—	—	4
3	9–12	4–5	—	6–15	0	0	3–11	1–7	—	—	—	3
2	5–8	2–3	—	0–5	—	—	0–2	0	—	—	—	2
1	0–4	0–1	—	—	—	—	—	—	—	—	—	1
90% Conf. Int.	2	2	2	3	2	2	2	2	2	—	—	90% Conf. Int.

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SUBDOMAIN *v*-Scale Scores

11:0–11:3

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		*v*-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	—	—	—	—	83–88	—	—	—	—	—	24
23	—	—	50	82	—	81–82	—	—	—	—	—	23
22	—	—	—	81	—	78–80	76	62	—	—	—	22
21	—	—	49	80	48	75–77	75	—	60	—	—	21
20	—	—	—	79	46–47	72–74	74	61	59	—	—	20
19	—	—	48	78	44–45	69–71	73	60	58	—	—	19
18	—	—	47	77	43	67–68	—	59	57	—	—	18
17	40	108	45–46	76	40–42	65–66	72	58	55–56	—	—	17
16	—	—	44	75	38–39	63–64	71	57	52–54	—	—	16
15	39	107	43	73–74	35–37	62	69–70	56	48–51	—	—	15
14	38	105–106	41–42	72	32–34	60–61	67–68	55	44–47	—	—	14
13	37	103–104	39–40	71	28–31	57–59	64–66	53–54	40–43	—	—	13
12	35–36	100–102	37–38	70	25–27	55–56	62–63	51–52	35–39	—	—	12
11	33–34	95–99	35–36	68–69	22–24	52–54	58–61	49–50	30–34	—	—	11
10	32	89–94	32–34	65–67	18–21	48–51	55–57	46–48	26–29	—	—	10
9	27–31	83–88	28–31	63–64	16–17	44–47	52–54	42–45	22–25	—	—	9
8	25–26	76–82	23–27	56–62	13–15	35–43	45–51	38–41	18–21	—	—	8
7	24	56–75	13–22	48–55	9–12	23–34	37–44	30–37	9–17	—	—	7
6	22–23	50–55	9–12	42–47	7–8	18–22	33–36	27–29	6–8	—	—	6
5	19–21	39–49	3–8	36–41	4–6	10–17	27–32	21–26	0–5	—	—	5
4	17–18	28–38	0–2	29–35	1–3	2–9	21–26	16–20	—	—	—	4
3	13–16	14–27	—	22–28	0	0–1	14–20	9–15	—	—	—	3
2	9–12	2–13	—	14–21	—	—	5–13	1–8	—	—	—	2
1	0–8	0–1	—	0–13	—	—	0–4	0	—	—	—	1
90% Conf. Int.	2	2	2	3	2	2	2	3	2	—	—	90% Conf. Int.

11:4–11:7

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		*v*-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	—	—	—	—	83–88	—	—	—	—	—	24
23	—	—	50	82	—	81–82	—	—	—	—	—	23
22	—	—	—	81	—	78–80	76	62	—	—	—	22
21	—	—	49	80	48	75–77	75	—	60	—	—	21
20	—	—	—	79	46–47	72–74	74	61	59	—	—	20
19	—	—	48	78	45	69–71	73	60	58	—	—	19
18	—	—	47	77	43–44	67–68	—	59	57	—	—	18
17	40	108	46	76	40–42	65–66	72	58	55–56	—	—	17
16	—	—	44–45	75	38–39	63–64	71	57	52–54	—	—	16
15	39	107	43	73–74	35–37	62	69–70	56	48–51	—	—	15
14	38	105–106	41–42	72	32–34	60–61	67–68	55	44–47	—	—	14
13	37	103–104	39–40	71	28–31	57–59	64–66	53–54	40–43	—	—	13
12	35–36	100–102	37–38	70	25–27	55–56	62–63	51–52	35–39	—	—	12
11	33–34	95–99	35–36	68–69	22–24	52–54	58–61	49–50	30–34	—	—	11
10	32	89–94	32–34	65–67	18–21	48–51	55–57	46–48	26–29	—	—	10
9	27–31	83–88	28–31	63–64	16–17	44–47	52–54	42–45	22–25	—	—	9
8	25–26	76–82	23–27	56–62	13–15	35–43	45–51	38–41	18–21	—	—	8
7	24	56–75	13–22	48–55	9–12	23–34	37–44	30–37	9–17	—	—	7
6	22–23	50–55	9–12	43–47	7–8	18–22	33–36	27–29	6–8	—	—	6
5	19–21	39–49	3–8	37–42	4–6	10–17	27–32	21–26	0–5	—	—	5
4	17–18	28–38	0–2	31–36	1–3	2–9	21–26	16–20	—	—	—	4
3	13–16	14–27	—	24–30	0	0–1	14–20	9–15	—	—	—	3
2	9–12	4–13	—	16–23	—	—	5–13	1–8	—	—	—	2
1	0–8	0–3	—	0–15	—	—	0–4	0	—	—	—	1
90% Conf. Int.	2	2	2	3	2	2	2	3	2	—	—	90% Conf. Int.

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11:8–11:11

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		v-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	—	—	—	—	83–88	—	—	—	—	—	24
23	—	—	—	82	—	81–82	—	—	—	—	—	23
22	—	—	50	81	—	78–80	76	—	—	—	—	22
21	—	—	—	80	48	76–77	—	62	60	—	—	21
20	—	—	49	79	47	74–75	75	—	59	—	—	20
19	—	—	—	78	46	71–73	74	61	58	—	—	19
18	—	—	48	77	44–45	69–70	73	60	57	—	—	18
17	40	108	47	76	42–43	67–68	72	59	55–56	—	—	17
16	—	—	46	75	40–41	65–66	71	58	53–54	—	—	16
15	39	107	44–45	73–74	37–39	63–64	69–70	57	49–52	—	—	15
14	38	105–106	43	72	34–36	61–62	67–68	55–56	45–48	—	—	14
13	37	103–104	41–42	71	30–33	58–60	64–66	53–54	40–44	—	—	13
12	35–36	100–102	38–40	70	26–29	55–57	62–63	51–52	35–39	—	—	12
11	33–34	95–99	35–37	68–69	22–25	52–54	58–61	49–50	30–34	—	—	11
10	32	90–94	32–34	65–67	18–21	48–51	55–57	46–48	26–29	—	—	10
9	27–31	83–89	28–31	63–64	16–17	44–47	52–54	42–45	22–25	—	—	9
8	25–26	76–82	23–27	56–62	13–15	35–43	45–51	38–41	18–21	—	—	8
7	24	56–75	13–22	48–55	9–12	23–34	37–44	30–37	9–17	—	—	7
6	22–23	50–55	9–12	44–47	7–8	18–22	33–36	27–29	6–8	—	—	6
5	19–21	39–49	3–8	38–43	4–6	10–17	27–32	21–26	0–5	—	—	5
4	17–18	28–38	0–2	32–37	1–3	2–9	21–26	16–20	—	—	—	4
3	13–16	14–27	—	26–31	0	0–1	14–20	9–15	—	—	—	3
2	9–12	7–13	—	18–25	—	—	5–13	1–8	—	—	—	2
1	0–8	0–6	—	0–17	—	—	0–4	0	—	—	—	1
90% Conf. Int.	2	2	2	3	2	2	2	3	2	—	—	90% Conf. Int.

12:0–12:3

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		v-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	—	—	—	—	84–88	—	—	—	—	—	24
23	—	—	—	—	—	82–83	—	—	—	—	—	23
22	—	—	50	82	—	80–81	—	—	—	—	—	22
21	—	—	—	81	—	78–79	76	62	60	—	—	21
20	—	—	49	80	48	75–77	75	—	—	—	—	20
19	—	—	—	79	46–47	72–74	74	61	59	—	—	19
18	—	—	48	78	45	69–71	73	60	58	—	—	18
17	—	108	47	77	43–44	67–68	—	59	57	—	—	17
16	40	—	46	76	40–42	65–66	72	58	55–56	—	—	16
15	—	107	45	75	38–39	63–64	71	57	52–54	—	—	15
14	39	106	43–44	73–74	35–37	62	69–70	56	48–51	—	—	14
13	38	105	41–42	72	32–34	60–61	67–68	55	44–47	—	—	13
12	37	102–104	39–40	71	28–31	57–59	64–66	53–54	39–43	—	—	12
11	35–36	99–101	37–38	70	25–27	54–56	61–63	51–52	34–38	—	—	11
10	33–34	95–98	34–36	68–69	22–24	50–53	57–60	48–50	29–33	—	—	10
9	30–32	89–94	29–33	64–67	17–21	44–49	53–56	45–47	24–28	—	—	9
8	27–29	82–88	23–28	60–63	13–16	37–43	48–52	41–44	20–23	—	—	8
7	24–26	72–81	14–22	53–59	9–12	28–36	40–47	33–40	11–19	—	—	7
6	22–23	58–71	10–13	46–52	7–8	21–27	37–39	28–32	7–10	—	—	6
5	19–21	52–57	3–9	42–45	4–6	13–20	31–36	25–27	1–6	—	—	5
4	17–18	36–51	0–2	36–41	1–3	6–12	25–30	20–24	0	—	—	4
3	13–16	23–35	—	30–35	0	0–5	18–24	14–19	—	—	—	3
2	9–12	11–22	—	20–29	—	—	7–17	3–13	—	—	—	2
1	0–8	0–10	—	0–19	—	—	0–6	0–2	—	—	—	1
90% Conf. Int.	2	2	2	3	2	2	2	3	2	—	—	90% Conf. Int.

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SUBDOMAIN *v*-Scale Scores

12:4–12:7

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		*v*-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	—	—	—	—	84–88	—	—	—	—	—	24
23	—	—	—	—	—	82–83	—	—	—	—	—	23
22	—	—	50	82	—	80–81	—	—	—	—	—	22
21	—	—	—	81	—	78–79	76	62	60	—	—	21
20	—	—	49	80	48	75–77	75	—	—	—	—	20
19	—	—	—	79	46–47	72–74	74	61	59	—	—	19
18	—	—	48	78	45	69–71	73	60	58	—	—	18
17	—	108	47	77	43–44	67–68	—	59	57	—	—	17
16	40	—	46	76	40–42	65–66	72	58	55–56	—	—	16
15	—	107	45	75	38–39	63–64	71	57	52–54	—	—	15
14	39	106	43–44	73–74	35–37	62	69–70	56	48–51	—	—	14
13	38	105	41–42	72	32–34	60–61	67–68	55	44–47	—	—	13
12	37	102–104	39–40	71	28–31	57–59	64–66	53–54	39–43	—	—	12
11	35–36	99–101	37–38	70	25–27	54–56	61–63	51–52	34–38	—	—	11
10	33–34	95–98	34–36	68–69	22–24	50–53	57–60	48–50	29–33	—	—	10
9	30–32	89–94	29–33	64–67	17–21	44–49	53–56	45–47	24–28	—	—	9
8	27–29	82–88	23–28	60–63	13–16	37–43	48–52	41–44	20–23	—	—	8
7	24–26	72–81	14–22	53–59	9–12	28–36	40–47	33–40	11–19	—	—	7
6	22–23	62–71	10–13	48–52	7–8	21–27	37–39	29–32	7–10	—	—	6
5	19–21	54–61	3–9	43–47	4–6	14–20	31–36	25–28	1–6	—	—	5
4	17–18	39–53	0–2	38–42	1–3	7–13	25–30	20–24	0	—	—	4
3	13–16	29–38	—	32–37	0	0–6	18–24	14–19	—	—	—	3
2	9–12	14–28	—	22–31	—	—	8–17	4–13	—	—	—	2
1	0–8	0–13	—	0–21	—	—	0–7	0–3	—	—	—	1
90% Conf. Int.	2	2	2	3	2	2	2	3	2	—	—	90% Conf. Int.

12:8–12:11

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		*v*-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	—	—	—	—	84–88	—	—	—	—	—	24
23	—	—	—	—	—	82–83	—	—	—	—	—	23
22	—	—	—	82	—	80–81	—	—	—	—	—	22
21	—	—	50	81	—	78–79	76	—	60	—	—	21
20	—	—	—	80	48	76–77	—	62	—	—	—	20
19	—	—	49	79	47	74–75	75	—	59	—	—	19
18	—	—	—	78	46	71–73	74	61	58	—	—	18
17	—	108	48	77	44–45	69–70	73	60	57	—	—	17
16	40	—	47	76	42–43	67–68	72	59	55–56	—	—	16
15	—	107	46	75	40–41	65–66	71	58	53–54	—	—	15
14	39	106	45	73–74	37–39	63–64	69–70	57	49–52	—	—	14
13	38	105	43–44	72	34–36	61–62	67–68	55–56	45–48	—	—	13
12	37	102–104	41–42	71	30–33	58–60	64–66	53–54	39–44	—	—	12
11	35–36	99–101	38–40	70	26–29	54–57	61–63	51–52	34–38	—	—	11
10	33–34	95–98	34–37	68–69	22–25	50–53	57–60	48–50	29–33	—	—	10
9	30–32	90–94	29–33	64–67	17–21	44–49	53–56	45–47	24–28	—	—	9
8	27–29	82–89	23–28	60–63	13–16	37–43	48–52	41–44	20–23	—	—	8
7	24–26	72–81	14–22	53–59	9–12	28–36	40–47	33–40	11–19	—	—	7
6	22–23	63–71	10–13	48–52	7–8	22–27	37–39	30–32	7–10	—	—	6
5	19–21	56–62	3–9	43–47	4–6	14–21	31–36	25–29	1–6	—	—	5
4	17–18	42–55	0–2	38–42	1–3	7–13	25–30	20–24	0	—	—	4
3	13–16	31–41	—	32–37	0	0–6	18–24	14–19	—	—	—	3
2	9–12	17–30	—	24–31	—	—	9–17	5–13	—	—	—	2
1	0–8	0–16	—	0–23	—	—	0–8	0–4	—	—	—	1
90% Conf. Int.	2	2	2	3	2	2	2	3	2	—	—	90% Conf. Int.

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13:0–13:5

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		v-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	—	—	—	—	84–88	—	—	—	—	—	24
23	—	—	—	—	—	82–83	—	—	—	—	—	23
22	—	—	—	82	—	80–81	—	—	—	—	—	22
21	—	—	50	81	—	78–79	76	—	60	—	—	21
20	—	—	—	80	48	76–77	—	62	—	—	—	20
19	—	—	49	79	47	74–75	75	—	59	—	—	19
18	—	—	—	78	46	71–73	74	61	58	—	—	18
17	—	108	48	77	44–45	69–70	73	60	57	—	—	17
16	40	—	47	76	42–43	67–68	72	59	55–56	—	—	16
15	—	107	46	75	40–41	65–66	71	58	53–54	—	—	15
14	39	106	45	73–74	37–39	63–64	69–70	57	49–52	—	—	14
13	38	105	43–44	72	34–36	61–62	67–68	55–56	45–48	—	—	13
12	37	102–104	41–42	71	30–33	58–60	64–66	53–54	39–44	—	—	12
11	35–36	99–101	38–40	70	26–29	54–57	61–63	51–52	34–38	—	—	11
10	33–34	95–98	34–37	68–69	22–25	50–53	57–60	48–50	29–33	—	—	10
9	30–32	90–94	29–33	64–67	17–21	44–49	53–56	45–47	24–28	—	—	9
8	27–29	82–89	23–28	60–63	13–16	37–43	48–52	41–44	20–23	—	—	8
7	24–26	72–81	14–22	53–59	9–12	28–36	40–47	33–40	11–19	—	—	7
6	22–23	65–71	10–13	50–52	7–8	22–27	37–39	30–32	7–10	—	—	6
5	19–21	58–64	3–9	45–49	4–6	14–21	31–36	25–29	1–6	—	—	5
4	17–18	46–57	0–2	40–44	1–3	7–13	25–30	20–24	0	—	—	4
3	13–16	34–45	—	34–39	0	0–6	18–24	14–19	—	—	—	3
2	9–12	21–33	—	26–33	—	—	10–17	6–13	—	—	—	2
1	0–8	0–20	—	0–25	—	—	0–9	0–5	—	—	—	1
90% Conf. Int.	2	2	2	3	2	2	2	3	2	—	—	90% Conf. Int.

13:6–13:11

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		v-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	—	—	—	—	86–88	—	—	—	—	—	24
23	—	—	—	—	—	84–85	—	—	—	—	—	23
22	—	—	—	—	—	82–83	—	—	—	—	—	22
21	—	—	—	82	—	80–81	76	—	60	—	—	21
20	—	—	50	81	48	77–79	—	—	—	—	—	20
19	—	—	—	80	—	74–76	75	62	—	—	—	19
18	—	—	49	79	47	72–73	74	—	58–59	—	—	18
17	—	108	—	78	46	70–71	73	61	—	—	—	17
16	40	—	48	77	44–45	69	72	60	56–57	—	—	16
15	—	107	47	76	41–43	67–68	71	59	53–55	—	—	15
14	39	106	45–46	75	38–40	65–66	69–70	57–58	49–52	—	—	14
13	38	105	43–44	73–74	34–37	62–64	67–68	55–56	45–48	—	—	13
12	37	102–104	41–42	72	30–33	59–61	64–66	53–54	39–44	—	—	12
11	35–36	99–101	38–40	71	26–29	55–58	61–63	51–52	34–38	—	—	11
10	33–34	95–98	34–37	68–70	22–25	50–54	57–60	48–50	29–33	—	—	10
9	30–32	90–94	29–33	65–67	18–21	44–49	53–56	45–47	24–28	—	—	9
8	27–29	82–89	23–28	60–64	16–17	37–43	48–52	41–44	20–23	—	—	8
7	24–26	72–81	14–22	53–59	9–15	28–36	40–47	33–40	11–19	—	—	7
6	22–23	67–71	10–13	50–52	7–8	23–27	37–39	31–32	7–10	—	—	6
5	19–21	60–66	3–9	45–49	4–6	15–22	31–36	26–30	1–6	—	—	5
4	17–18	49–59	0–2	40–44	1–3	8–14	25–30	21–25	0	—	—	4
3	13–16	43–48	—	34–39	0	0–7	18–24	15–20	—	—	—	3
2	9–12	24–42	—	27–33	—	—	10–17	7–14	—	—	—	2
1	0–8	0–23	—	0–26	—	—	0–9	0–6	—	—	—	1
90% Conf. Int.	2	2	2	3	2	2	2	3	2	—	—	90% Conf. Int.

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SUBDOMAIN *v*-Scale Scores

14:0–14:5

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		*v*-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	—	—	—	—	88	—	—	—	—	—	24
23	—	—	—	—	—	84–87	—	—	—	—	—	23
22	—	—	—	—	—	82–83	—	—	—	—	—	22
21	—	—	—	82	—	80–81	76	—	—	—	—	21
20	—	—	—	81	—	78–79	—	—	60	—	—	20
19	—	—	50	80	48	76–77	75	62	—	—	—	19
18	—	—	—	79	47	74–75	—	—	59	—	—	18
17	—	108	49	78	46	71–73	74	61	58	—	—	17
16	40	—	48	77	44–45	69–70	73	60	57	—	—	16
15	—	—	47	76	42–43	67–68	72	59	55–56	—	—	15
14	—	107	46	75	40–41	65–66	71	58	52–54	—	—	14
13	39	106	45	73–74	37–39	63–64	69–70	57	49–51	—	—	13
12	38	104–105	43–44	72	34–36	61–62	66–68	55–56	44–48	—	—	12
11	36–37	102–103	40–42	71	30–33	58–60	63–65	53–54	38–43	—	—	11
10	34–35	99–101	37–39	70	26–29	54–57	59–62	50–52	32–37	—	—	10
9	31–33	94–98	33–36	68–69	22–25	50–53	54–58	47–49	27–31	—	—	9
8	28–30	87–93	25–32	64–67	17–21	44–49	48–53	43–46	20–26	—	—	8
7	24–27	78–86	15–24	59–63	13–16	36–43	42–47	36–42	12–19	—	—	7
6	22–23	70–77	11–14	54–58	10–12	29–35	37–41	31–35	8–11	—	—	6
5	19–21	67–69	3–10	50–53	6–9	23–28	31–36	28–30	1–7	—	—	5
4	17–18	60–66	0–2	46–49	2–5	17–22	25–30	22–27	0	—	—	4
3	13–16	46–59	—	40–45	0–1	10–16	18–24	16–21	—	—	—	3
2	9–12	27–45	—	30–39	—	1–9	12–17	8–15	—	—	—	2
1	0–8	0–26	—	0–29	—	0	0–11	0–7	—	—	—	1
90% Conf. Int.	2	2	2	3	2	2	2	2	2	—	—	90% Conf. Int.

14:6–14:11

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		*v*-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	—	—	—	—	88	—	—	—	—	—	24
23	—	—	—	—	—	86–87	—	—	—	—	—	23
22	—	—	—	—	—	84–85	—	—	—	—	—	22
21	—	—	—	—	—	82–83	76	—	—	—	—	21
20	—	—	—	82	—	80–81	—	—	60	—	—	20
19	—	—	—	81	48	77–79	75	—	—	—	—	19
18	—	—	50	80	—	74–76	—	62	—	—	—	18
17	—	108	—	79	47	72–73	74	—	58–59	—	—	17
16	40	—	49	78	46	70–71	73	61	—	—	—	16
15	—	—	48	77	44–45	69	72	60	56–57	—	—	15
14	—	107	47	76	41–43	67–68	71	59	52–55	—	—	14
13	39	106	45–46	75	38–40	65–66	69–70	57–58	49–51	—	—	13
12	38	104–105	43–44	73–74	34–37	62–64	66–68	55–56	44–48	—	—	12
11	36–37	102–103	40–42	72	30–33	59–61	63–65	53–54	38–43	—	—	11
10	34–35	99–101	37–39	71	26–29	55–58	59–62	50–52	32–37	—	—	10
9	31–33	94–98	33–36	68–70	22–25	50–54	54–58	47–49	27–31	—	—	9
8	28–30	87–93	25–32	65–67	18–21	44–49	48–53	43–46	20–26	—	—	8
7	24–27	78–86	15–24	59–64	16–17	36–43	42–47	36–42	12–19	—	—	7
6	22–23	72–77	11–14	55–58	14–15	29–35	38–41	32–35	8–11	—	—	6
5	19–21	67–71	3–10	51–54	10–13	23–28	32–37	28–31	1–7	—	—	5
4	17–18	60–66	0–2	47–50	7–9	17–22	26–31	23–27	0	—	—	4
3	13–16	48–59	—	41–46	3–6	10–16	19–25	17–22	—	—	—	3
2	9–12	31–47	—	32–40	0–2	1–9	12–18	9–16	—	—	—	2
1	0–8	0–30	—	0–31	—	0	0–11	0–8	—	—	—	1
90% Conf. Int.	2	2	2	3	2	2	2	2	2	—	—	90% Conf. Int.

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15:0–15:5

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		v-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	—	—	—	—	88	—	—	—	—	—	24
23	—	—	—	—	—	86–87	—	—	—	—	—	23
22	—	—	—	—	—	84–85	—	—	—	—	—	22
21	—	—	—	—	—	82–83	76	—	—	—	—	21
20	—	—	—	82	—	80–81	—	—	60	—	—	20
19	—	—	—	81	48	77–79	75	—	—	—	—	19
18	—	—	50	80	—	75–76	—	62	—	—	—	18
17	—	108	—	79	47	72–74	74	—	58–59	—	—	17
16	40	—	49	78	46	70–71	73	61	—	—	—	16
15	—	—	48	77	44–45	69	72	60	56–57	—	—	15
14	—	107	47	76	41–43	67–68	71	59	52–55	—	—	14
13	39	106	45–46	75	38–40	65–66	69–70	57–58	49–51	—	—	13
12	38	104–105	43–44	73–74	34–37	62–64	66–68	55–56	44–48	—	—	12
11	36–37	102–103	40–42	72	30–33	59–61	63–65	53–54	38–43	—	—	11
10	34–35	99–101	37–39	71	26–29	55–58	59–62	50–52	32–37	—	—	10
9	31–33	94–98	33–36	68–70	22–25	50–54	54–58	47–49	27–31	—	—	9
8	28–30	87–93	25–32	65–67	18–21	44–49	48–53	43–46	20–26	—	—	8
7	24–27	78–86	15–24	59–64	16–17	36–43	42–47	36–42	12–19	—	—	7
6	22–23	73–77	11–14	56–58	14–15	30–35	38–41	32–35	8–11	—	—	6
5	19–21	67–72	3–10	52–55	10–13	24–29	32–37	27–31	1–7	—	—	5
4	17–18	60–66	0–2	48–51	7–9	18–23	26–31	24–26	0	—	—	4
3	13–16	49–59	—	42–47	3–6	11–17	19–25	18–23	—	—	—	3
2	9–12	34–48	—	34–41	0–2	3–10	12–18	10–17	—	—	—	2
1	0–8	0–33	—	0–33	—	0–2	0–11	0–9	—	—	—	1
90% Conf. Int.	2	2	2	3	2	2	2	2	2	—	—	90% Conf. Int.

15:6–15:11

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		v-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	—	—	—	—	—	—	—	—	—	—	24
23	—	—	—	—	—	88	—	—	—	—	—	23
22	—	—	—	—	—	86–87	—	—	—	—	—	22
21	—	—	—	—	—	84–85	—	—	—	—	—	21
20	—	—	—	—	—	82–83	76	—	—	—	—	20
19	—	—	—	82	48	80–81	—	—	60	—	—	19
18	—	—	50	81	—	77–79	75	62	—	—	—	18
17	—	108	—	80	47	74–76	—	—	59	—	—	17
16	40	—	49	79	46	72–73	74	—	58	—	—	16
15	—	—	48	78	44–45	70–71	73	61	56–57	—	—	15
14	—	107	47	77	42–43	69	72	60	52–55	—	—	14
13	39	106	46	76	39–41	67–68	70–71	58–59	49–51	—	—	13
12	38	104–105	43–45	75	36–38	65–66	66–69	56–57	44–48	—	—	12
11	36–37	102–103	40–42	73–74	32–35	62–64	63–65	53–55	38–43	—	—	11
10	34–35	99–101	37–39	71–72	27–31	57–61	59–62	50–52	32–37	—	—	10
9	32–33	94–98	33–36	68–70	22–26	50–56	54–58	47–49	27–31	—	—	9
8	28–31	87–93	25–32	65–67	19–21	44–49	48–53	43–46	20–26	—	—	8
7	24–27	78–86	15–24	59–64	16–18	36–43	42–47	36–42	12–19	—	—	7
6	22–23	74–77	11–14	56–58	14–15	31–35	38–41	33–35	8–11	—	—	6
5	19–21	67–73	3–10	52–55	10–13	25–30	32–37	28–32	1–7	—	—	5
4	17–18	60–66	0–2	48–51	7–9	19–24	26–31	24–27	0	—	—	4
3	13–16	50–59	—	43–47	3–6	12–18	19–25	18–23	—	—	—	3
2	9–12	37–49	—	36–42	0–2	5–11	13–18	11–17	—	—	—	2
1	0–8	0–36	—	0–35	—	0–4	0–12	0–10	—	—	—	1
90% Conf. Int.	2	2	2	3	2	2	2	2	2	—	—	90% Conf. Int.

continued on next page

SUBDOMAIN *v*-Scale Scores

16:0–16:5

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		*v*-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	—	—	—	—	—	—	—	—	—	—	24
23	—	—	—	—	—	—	—	—	—	—	—	23
22	—	—	—	—	—	87–88	—	—	—	—	—	22
21	—	—	—	—	—	85–86	—	—	—	—	—	21
20	—	—	—	—	—	83–84	76	—	—	—	—	20
19	—	—	—	82	—	80–82	—	—	60	—	—	19
18	—	—	—	81	48	78–79	75	—	—	—	—	18
17	—	—	50	80	—	77	—	62	—	—	—	17
16	—	108	—	79	47	74–76	74	—	58–59	—	—	16
15	40	—	49	78	46	72–73	73	61	57	—	—	15
14	—	—	48	77	44–45	70–71	72	60	55–56	—	—	14
13	39	107	47	76	41–43	67–69	71	59	52–54	—	—	13
12	38	106	45–46	75	38–40	65–66	69–70	57–58	49–51	—	—	12
11	37	104–105	43–44	73–74	34–37	62–64	66–68	55–56	44–48	—	—	11
10	36	101–103	40–42	72	30–33	59–61	62–65	53–54	38–43	—	—	10
9	34–35	95–100	34–39	70–71	26–29	55–58	56–61	48–52	30–37	—	—	9
8	31–33	90–94	25–33	68–69	22–25	49–54	48–55	44–47	20–29	—	—	8
7	28–30	85–89	16–24	64–67	18–21	40–48	43–47	38–43	13–19	—	—	7
6	26–27	78–84	11–15	59–63	15–17	34–39	39–42	33–37	8–12	—	—	6
5	23–25	71–77	3–10	56–58	11–14	30–33	33–38	29–32	1–7	—	—	5
4	21–22	63–70	0–2	53–55	7–10	24–29	27–32	25–28	0	—	—	4
3	17–20	53–62	—	47–52	3–6	16–23	20–26	19–24	—	—	—	3
2	13–16	41–52	—	38–46	0–2	7–15	14–19	12–18	—	—	—	2
1	0–12	0–40	—	0–37	—	0–6	0–13	0–11	—	—	—	1
90% Conf. Int.	1	2	2	3	2	2	2	2	2	—	—	90% Conf. Int.

16:6–16:11

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		*v*-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	—	—	—	—	—	—	—	—	—	—	24
23	—	—	—	—	—	—	—	—	—	—	—	23
22	—	—	—	—	—	88	—	—	—	—	—	22
21	—	—	—	—	—	86–87	—	—	—	—	—	21
20	—	—	—	—	—	84–85	—	—	—	—	—	20
19	—	—	—	—	—	82–83	76	—	—	—	—	19
18	—	—	—	82	48	80–81	—	—	60	—	—	18
17	—	—	50	81	—	77–79	75	62	—	—	—	17
16	—	108	—	80	47	75–76	—	—	59	—	—	16
15	40	—	49	79	46	72–74	74	—	57–58	—	—	15
14	—	—	48	78	44–45	70–71	73	61	55–56	—	—	14
13	39	107	47	77	42–43	69	72	60	52–54	—	—	13
12	38	106	46	76	39–41	67–68	70–71	58–59	49–51	—	—	12
11	37	104–105	43–45	75	36–38	65–66	66–69	56–57	44–48	—	—	11
10	36	101–103	40–42	73–74	32–35	62–64	62–65	53–55	38–43	—	—	10
9	34–35	95–100	34–39	70–72	27–31	57–61	56–61	48–52	30–37	—	—	9
8	32–33	90–94	25–33	68–69	22–26	49–56	48–55	44–47	20–29	—	—	8
7	28–31	85–89	16–24	64–67	19–21	40–48	43–47	38–43	13–19	—	—	7
6	26–27	79–84	11–15	60–63	16–18	35–39	39–42	34–37	8–12	—	—	6
5	23–25	74–78	3–10	59	12–15	32–34	33–38	30–33	1–7	—	—	5
4	21–22	67–73	0–2	55–58	8–11	26–31	27–32	25–29	0	—	—	4
3	17–20	56–66	—	49–54	3–7	19–25	20–26	19–24	—	—	—	3
2	13–16	44–55	—	40–48	0–2	9–18	15–19	13–18	—	—	—	2
1	0–12	0–43	—	0–39	—	0–8	0–14	0–12	—	—	—	1
90% Conf. Int.	1	2	2	3	2	2	2	2	2	—	—	90% Conf. Int.

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17:0–17:5

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		v-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	—	—	—	—	—	—	—	—	—	—	24
23	—	—	—	—	—	—	—	—	—	—	—	23
22	—	—	—	—	—	—	—	—	—	—	—	22
21	—	—	—	—	—	87–88	—	—	—	—	—	21
20	—	—	—	—	—	85–86	—	—	—	—	—	20
19	—	—	—	—	—	83–84	76	—	—	—	—	19
18	—	—	—	82	48	80–82	—	—	60	—	—	18
17	—	—	50	81	—	78–79	75	62	—	—	—	17
16	—	108	—	80	47	77	—	—	59	—	—	16
15	40	—	49	79	46	75–76	74	—	57–58	—	—	15
14	—	—	48	78	44–45	72–74	73	61	55–56	—	—	14
13	39	107	47	77	42–43	70–71	72	60	52–54	—	—	13
12	38	106	46	76	39–41	67–69	70–71	58–59	49–51	—	—	12
11	37	104–105	43–45	75	36–38	65–66	66–69	56–57	44–48	—	—	11
10	36	101–103	40–42	73–74	32–35	62–64	62–65	53–55	38–43	—	—	10
9	34–35	95–100	34–39	70–72	27–31	57–61	56–61	48–52	30–37	—	—	9
8	32–33	90–94	25–33	68–69	22–26	49–56	48–55	44–47	20–29	—	—	8
7	28–31	85–89	16–24	64–67	19–21	40–48	43–47	38–43	13–19	—	—	7
6	26–27	80–84	11–15	61–63	16–18	36–39	40–42	34–37	8–12	—	—	6
5	23–25	76–79	3–10	59–60	12–15	33–35	34–39	30–33	1–7	—	—	5
4	21–22	68–75	0–2	56–58	8–11	27–32	28–33	25–29	0	—	—	4
3	17–20	64–67	—	50–55	3–7	21–26	20–27	19–24	—	—	—	3
2	13–16	47–63	—	42–49	0–2	11–20	16–19	13–18	—	—	—	2
1	0–12	0–46	—	0–41	—	0–10	0–15	0–12	—	—	—	1
90% Conf. Int.	1	2	2	3	2	2	2	2	2	—	—	90% Conf. Int.

17:6–17:11

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		v-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	—	—	—	—	—	—	—	—	—	—	24
23	—	—	—	—	—	—	—	—	—	—	—	23
22	—	—	—	—	—	—	—	—	—	—	—	22
21	—	—	—	—	—	88	—	—	—	—	—	21
20	—	—	—	—	—	87	—	—	—	—	—	20
19	—	—	—	—	—	85–86	76	—	—	—	—	19
18	—	—	—	82	48	83–84	—	—	60	—	—	18
17	—	—	50	81	—	80–82	75	62	—	—	—	17
16	—	108	—	80	47	78–79	—	—	59	—	—	16
15	40	—	49	79	46	77	74	—	57–58	—	—	15
14	—	—	48	78	44–45	72–76	73	61	55–56	—	—	14
13	39	107	47	77	42–43	70–71	72	60	52–54	—	—	13
12	38	106	46	76	39–41	67–69	70–71	58–59	49–51	—	—	12
11	37	104–105	43–45	75	36–38	65–66	66–69	56–57	44–48	—	—	11
10	36	101–103	40–42	73–74	32–35	62–64	62–65	53–55	38–43	—	—	10
9	34–35	95–100	34–39	70–72	27–31	57–61	56–61	48–52	30–37	—	—	9
8	32–33	90–94	25–33	68–69	22–26	49–56	48–55	44–47	20–29	—	—	8
7	28–31	85–89	16–24	64–67	19–21	40–48	43–47	38–43	13–19	—	—	7
6	26–27	82–84	11–15	62–63	16–18	36–39	40–42	35–37	8–12	—	—	6
5	23–25	76–81	3–10	59–61	12–15	30–35	34–39	30–34	1–7	—	—	5
4	21–22	71–75	0–2	57–58	8–11	24–29	28–33	25–29	0	—	—	4
3	17–20	64–70	—	51–56	3–7	22–23	21–27	19–24	—	—	—	3
2	13–16	51–63	—	44–50	0–2	13–21	16–20	14–18	—	—	—	2
1	0–12	0–50	—	0–43	—	0–12	0–15	0–13	—	—	—	1
90% Conf. Int.	1	2	2	3	2	2	2	2	2	—	—	90% Conf. Int.

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SUBDOMAIN *v*-Scale Scores

18:0–18:5

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		*v*-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	—	—	—	—	—	—	—	—	—	—	24
23	—	—	—	—	—	—	—	—	—	—	—	23
22	—	—	—	—	—	—	—	—	—	—	—	22
21	—	—	—	—	—	—	—	—	—	—	—	21
20	—	—	—	—	—	87–88	—	—	—	—	—	20
19	—	—	—	—	—	86	—	—	—	—	—	19
18	—	—	—	82	48	84–85	76	—	60	—	—	18
17	—	—	50	—	—	83	—	62	—	—	—	17
16	—	108	—	81	47	80–82	75	—	59	—	—	16
15	40	—	49	80	46	78–79	—	—	58	—	—	15
14	—	—	48	79	45	75–77	73–74	—	55–57	—	—	14
13	39	107	47	78	43–44	72–74	72	60–61	52–54	—	—	13
12	38	106	46	76–77	40–42	70–71	70–71	58–59	49–51	—	—	12
11	37	104–105	43–45	75	36–39	67–69	66–69	56–57	44–48	—	—	11
10	36	101–103	40–42	73–74	32–35	64–66	62–65	53–55	38–43	—	—	10
9	34–35	95–100	34–39	70–72	27–31	57–63	56–61	48–52	30–37	—	—	9
8	32–33	90–94	25–33	68–69	22–26	49–56	48–55	44–47	20–29	—	—	8
7	28–31	85–89	16–24	64–67	19–21	40–48	43–47	38–43	13–19	—	—	7
6	26–27	82–84	11–15	62–63	16–18	38–39	41–42	35–37	8–12	—	—	6
5	23–25	76–81	3–10	59–61	12–15	33–37	34–40	30–34	1–7	—	—	5
4	21–22	71–75	0–2	57–58	8–11	28–32	28–33	26–29	0	—	—	4
3	17–20	64–70	—	53–56	3–7	24–27	22–27	21–25	—	—	—	3
2	13–16	54–63	—	45–52	0–2	14–23	17–21	15–20	—	—	—	2
1	0–12	0–53	—	0–44	—	0–13	0–16	0–14	—	—	—	1
90% Conf. Int.	1	2	2	3	2	2	2	2	2	—	—	90% Conf. Int.

18:6–18:11

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		*v*-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	—	—	—	—	—	—	—	—	—	—	24
23	—	—	—	—	—	—	—	—	—	—	—	23
22	—	—	—	—	—	—	—	—	—	—	—	22
21	—	—	—	—	—	—	—	—	—	—	—	21
20	—	—	—	—	—	88	—	—	—	—	—	20
19	—	—	—	—	—	87	—	—	—	—	—	19
18	—	—	—	82	48	85–86	76	—	60	—	—	18
17	—	—	50	—	—	83–84	—	62	—	—	—	17
16	—	108	—	81	47	81–82	75	—	59	—	—	16
15	40	—	49	80	46	78–80	—	—	58	—	—	15
14	—	—	48	79	45	77	73–74	—	55–57	—	—	14
13	39	107	47	78	43–44	72–76	72	60–61	52–54	—	—	13
12	38	106	46	76–77	40–42	70–71	70–71	58–59	49–51	—	—	12
11	37	104–105	43–45	75	36–39	67–69	66–69	56–57	44–48	—	—	11
10	36	101–103	40–42	73–74	32–35	64–66	62–65	53–55	38–43	—	—	10
9	34–35	95–100	34–39	70–72	27–31	57–63	56–61	48–52	30–37	—	—	9
8	32–33	90–94	25–33	68–69	22–26	49–56	48–55	44–47	20–29	—	—	8
7	28–31	85–89	16–24	64–67	19–21	40–48	43–47	38–43	13–19	—	—	7
6	26–27	82–84	11–15	62–63	16–18	38–39	41–42	36–37	8–12	—	—	6
5	23–25	76–81	3–10	59–61	12–15	33–37	35–40	30–35	1–7	—	—	5
4	21–22	71–75	0–2	57–58	8–11	29–32	29–34	27–29	0	—	—	4
3	17–20	64–70	—	53–56	3–7	26–28	23–28	22–26	—	—	—	3
2	13–16	56–63	—	47–52	0–2	16–25	18–22	16–21	—	—	—	2
1	0–12	0–55	—	0–46	—	0–15	0–17	0–15	—	—	—	1
90% Conf. Int.	1	2	2	3	2	2	2	2	2	—	—	90% Conf. Int.

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19:0–21:11

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		v-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	—	—	—	—	—	—	—	—	—	—	24
23	—	—	—	—	—	—	—	—	—	—	—	23
22	—	—	—	—	—	—	—	—	—	—	—	22
21	—	—	—	—	—	—	—	—	—	—	—	21
20	—	—	—	—	—	—	—	—	—	—	—	20
19	—	—	—	—	—	—	—	—	—	—	—	19
18	—	—	—	—	48	88	—	—	—	—	—	18
17	—	—	50	82	—	87	76	—	60	—	—	17
16	—	108	—	—	—	86	—	62	—	—	—	16
15	40	—	49	81	47	84–85	—	—	59	—	—	15
14	—	—	48	80	46	83	75	—	58	—	—	14
13	39	107	47	79	45	81–82	73–74	—	54–57	—	—	13
12	38	106	46	78	43–44	78–80	71–72	60–61	50–53	—	—	12
11	37	105	43–45	76–77	40–42	72–77	68–70	58–59	45–49	—	—	11
10	36	102–104	40–42	74–75	36–39	68–71	64–67	53–57	39–44	—	—	10
9	35	96–101	35–39	71–73	30–35	64–67	60–63	48–52	32–38	—	—	9
8	33–34	91–95	29–34	69–70	23–29	55–63	56–59	44–47	25–31	—	—	8
7	30–32	87–90	21–28	64–68	20–22	43–54	48–55	40–43	16–24	—	—	7
6	28–29	84–86	17–20	62–63	17–19	39–42	45–47	37–39	12–15	—	—	6
5	26–27	79–83	11–16	59–61	12–16	35–38	39–44	33–36	4–11	—	—	5
4	24–25	74–78	5–10	57–58	8–11	31–34	34–38	29–32	0–3	—	—	4
3	22–23	68–73	0–4	53–56	3–7	28–30	27–33	23–28	—	—	—	3
2	19–21	60–67	—	49–52	0–2	18–27	19–26	17–22	—	—	—	2
1	0–18	0–59	—	0–48	—	0–17	0–18	0–16	—	—	—	1
90% Conf. Int.	1	2	2	2	2	3	2	2	2	—	—	90% Conf. Int.

22:0–29:11

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		v-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	—	—	—	—	—	—	—	—	—	—	24
23	—	—	—	—	—	—	—	—	—	—	—	23
22	—	—	—	—	—	—	—	—	—	—	—	22
21	—	—	—	—	—	—	—	—	—	—	—	21
20	—	—	—	—	—	—	—	—	—	—	—	20
19	—	—	—	—	—	—	—	—	—	—	—	19
18	—	—	—	—	—	—	—	—	—	—	—	18
17	—	—	—	—	—	88	—	—	60	—	—	17
16	—	108	50	82	48	—	76	62	—	—	—	16
15	40	—	—	—	—	—	—	—	—	—	—	15
14	—	—	—	81	—	87	75	—	59	—	—	14
13	39	107	49	80	47	85–86	74	—	56–58	—	—	13
12	—	106	47–48	79	45–46	82–84	73	60–61	53–55	—	—	12
11	38	—	43–46	78	40–44	78–81	71–72	58–59	48–52	—	—	11
10	37	104–105	40–42	76–77	36–39	73–77	68–70	53–57	42–47	—	—	10
9	36	97–103	37–39	73–75	33–35	67–72	64–67	48–52	36–41	—	—	9
8	35	92–96	33–36	71–72	29–32	63–66	61–63	44–47	29–35	—	—	8
7	32–34	89–91	29–32	68–70	25–28	54–62	56–60	41–43	23–28	—	—	7
6	31	86–88	23–28	66–67	23–24	48–53	53–55	38–40	19–22	—	—	6
5	29–30	81–85	17–22	63–65	19–22	42–47	49–52	34–37	13–18	—	—	5
4	27–28	76–80	13–16	61–62	15–18	36–41	45–48	30–33	7–12	—	—	4
3	25–26	70–75	10–12	57–60	11–14	30–35	40–44	25–29	0–6	—	—	3
2	23–24	62–69	7–9	51–56	5–10	20–29	34–39	18–24	—	—	—	2
1	0–22	0–61	0–6	0–50	0–4	0–19	0–33	0–17	—	—	—	1
90% Conf. Int.	1	1	2	2	1	2	2	2	2	—	—	90% Conf. Int.

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SUBDOMAIN v-Scale Scores

30:0–39:11

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		v-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	—	—	—	—	—	—	—	—	—	—	24
23	—	—	—	—	—	—	—	—	—	—	—	23
22	—	—	—	—	—	—	—	—	—	—	—	22
21	—	—	—	—	—	—	—	—	—	—	—	21
20	—	—	—	—	—	—	—	—	—	—	—	20
19	—	—	—	—	—	—	—	—	—	—	—	19
18	—	—	—	—	—	—	—	—	—	—	—	18
17	—	—	—	—	—	—	—	—	—	—	—	17
16	40	108	50	82	48	88	76	62	60	—	—	16
15	—	—	—	—	—	—	—	—	—	—	—	15
14	—	—	—	81	—	—	75	—	—	—	—	14
13	—	—	49	—	47	86–87	74	—	57–59	—	—	13
12	39	107	47–48	80	45–46	83–85	73	60–61	54–56	—	—	12
11	—	106	43–46	79	43–44	81–82	71–72	58–59	48–53	—	—	11
10	38	104–105	40–42	77–78	40–42	76–80	68–70	53–57	43–47	—	—	10
9	37	98–103	37–39	75–76	36–39	69–75	66–67	48–52	40–42	—	—	9
8	36	94–97	35–36	72–74	33–35	67–68	64–65	44–47	36–39	—	—	8
7	34–35	91–93	33–34	70–71	29–32	63–66	60–63	41–43	29–35	—	—	7
6	33	88–90	27–32	68–69	27–28	60–62	58–59	38–40	26–28	—	—	6
5	31–32	84–87	21–26	66–67	23–26	56–59	55–57	34–37	21–25	—	—	5
4	30	80–83	17–20	64–65	19–22	52–55	53–54	30–33	17–20	—	—	4
3	28–29	74–79	13–16	61–63	15–18	46–51	49–52	25–29	11–16	—	—	3
2	26–27	68–73	9–12	53–60	10–14	36–45	45–48	19–24	4–10	—	—	2
1	0–25	0–67	0–8	0–52	0–9	0–35	0–44	0–18	0–3	—	—	1
90% Conf. Int.	1 (3)	1 (2)	2 (2)	2 (2)	1 (2)	2 (2)	2 (1)	2 (2)	2 (2)	—	—	90% Conf. Int.

40:0–49:11

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		v-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	—	—	—	—	—	—	—	—	—	—	24
23	—	—	—	—	—	—	—	—	—	—	—	23
22	—	—	—	—	—	—	—	—	—	—	—	22
21	—	—	—	—	—	—	—	—	—	—	—	21
20	—	—	—	—	—	—	—	—	—	—	—	20
19	—	—	—	—	—	—	—	—	—	—	—	19
18	—	—	—	—	—	—	—	—	—	—	—	18
17	—	—	—	—	—	—	—	—	—	—	—	17
16	40	108	50	82	48	88	76	62	60	—	—	16
15	—	—	—	—	—	—	—	—	—	—	—	15
14	—	—	—	81	—	—	75	—	—	—	—	14
13	—	—	49	—	47	86–87	74	—	57–59	—	—	13
12	39	107	47–48	80	45–46	83–85	73	60–61	54–56	—	—	12
11	—	106	43–46	79	43–44	81–82	71–72	58–59	48–53	—	—	11
10	38	104–105	40–42	77–78	40–42	76–80	68–70	53–57	43–47	—	—	10
9	37	98–103	37–39	75–76	38–39	69–75	66–67	48–52	40–42	—	—	9
8	36	94–97	35–36	72–74	35–37	67–68	64–65	44–47	37–39	—	—	8
7	34–35	91–93	33–34	70–71	30–34	63–66	60–63	41–43	34–36	—	—	7
6	33	88–90	30–32	68–69	28–29	60–62	58–59	38–40	32–33	—	—	6
5	31–32	84–87	27–29	66–67	24–27	56–59	55–57	34–37	29–31	—	—	5
4	30	80–83	24–26	64–65	21–23	52–55	53–54	30–33	26–28	—	—	4
3	28–29	74–79	20–23	61–63	19–20	46–51	49–52	25–29	22–25	—	—	3
2	26–27	68–73	16–19	57–60	16–18	40–45	45–48	19–24	18–21	—	—	2
1	0–25	0–67	0–15	0–56	0–15	0–39	0–44	0–18	0–17	—	—	1
90% Conf. Int.	3	2	2	2	2	2	1	2	2	—	—	90% Conf. Int.

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50:0–54:11

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		v-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	—	—	—	—	—	—	—	—	—	—	24
23	—	—	—	—	—	—	—	—	—	—	—	23
22	—	—	—	—	—	—	—	—	—	—	—	22
21	—	—	—	—	—	—	—	—	—	—	—	21
20	—	—	—	—	—	—	—	—	—	—	—	20
19	—	—	—	—	—	—	—	—	—	—	—	19
18	—	—	—	—	—	—	—	—	—	—	—	18
17	—	—	—	—	—	—	—	—	—	—	—	17
16	40	108	50	82	48	88	76	62	60	80	—	16
15	—	—	—	—	—	—	—	—	—	—	72	15
14	—	—	—	—	—	—	—	—	—	79	—	14
13	—	107	49	81	47	87	74–75	61	57–59	77–78	71	13
12	39	106	47–48	80	46	85–86	73	59–60	54–56	74–76	—	12
11	—	105	43–46	78–79	43–45	81–84	71–72	57–58	48–53	69–73	70	11
10	38	102–104	40–42	76–77	40–42	76–80	68–70	53–56	44–47	65–68	69	10
9	37	96–101	37–39	74–75	38–39	72–75	66–67	48–52	43	63–64	68	9
8	36	94–95	36	73	36–37	69–71	64–65	44–47	40–42	62	66–67	8
7	35	92–93	35	72	35	67–68	62–63	41–43	37–39	61	65	7
6	33–34	90–91	34	71	31–34	65–66	60–61	38–40	35–36	60	64	6
5	31–32	86–89	32–33	69–70	29–30	62–64	58–59	34–37	33–34	58–59	62–63	5
4	30	83–85	30–31	68	28	59–61	56–57	30–33	31–32	57	61	4
3	28–29	79–82	28–29	66–67	26–27	55–58	54–55	25–29	28–30	55–56	59–60	3
2	26–27	74–78	23–27	64–65	22–25	51–54	51–53	19–24	24–27	53–54	57–58	2
1	0–25	0–73	0–22	0–63	0–21	0–50	0–50	0–18	0–23	0–52	0–56	1
90% Conf. Int.	3 (3)	2 (1)	2 (2)	2 (2)	2 (2)	2 (2)	1 (2)	2 (2)	2 (1)	— (2)	— (2)	90% Conf. Int.

55:0–59:11

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		v-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	—	—	—	—	—	—	—	—	—	—	24
23	—	—	—	—	—	—	—	—	—	—	—	23
22	—	—	—	—	—	—	—	—	—	—	—	22
21	—	—	—	—	—	—	—	—	—	—	—	21
20	—	—	—	—	—	—	—	—	—	—	—	20
19	—	—	—	—	—	—	—	—	—	—	—	19
18	—	—	—	—	—	—	—	—	—	—	—	18
17	—	—	—	—	—	—	—	—	—	80	—	17
16	40	108	50	82	48	88	76	62	60	—	72	16
15	—	—	—	—	—	—	—	—	—	—	—	15
14	—	—	—	—	—	—	—	—	—	79	—	14
13	—	107	49	81	47	87	74–75	61	57–59	77–78	71	13
12	39	106	47–48	80	46	85–86	73	59–60	54–56	74–76	—	12
11	—	105	43–46	78–79	43–45	81–84	71–72	57–58	48–53	69–73	70	11
10	38	102–104	40–42	76–77	40–42	76–80	68–70	53–56	44–47	65–68	69	10
9	37	96–101	37–39	74–75	38–39	72–75	66–67	48–52	43	63–64	68	9
8	36	94–95	36	73	36–37	69–71	64–65	44–47	42	62	66–67	8
7	35	92–93	35	72	35	67–68	62–63	41–43	39–41	61	65	7
6	33–34	90–91	34	71	33–34	65–66	60–61	38–40	38	60	64	6
5	31–32	86–89	32–33	69–70	32	62–64	58–59	34–37	36–37	58–59	62–63	5
4	30	83–85	30–31	68	30–31	59–61	56–57	30–33	34–35	57	61	4
3	28–29	79–82	28–29	66–67	28–29	55–58	54–55	25–29	32–33	55–56	59–60	3
2	26–27	74–78	24–27	64–65	26–27	51–54	51–53	19–24	30–31	53–54	57–58	2
1	0–25	0–73	0–23	0–63	0–25	0–50	0–50	0–18	0–29	0–52	0–56	1
90% Conf. Int.	3	1	2	2	2	2	2	2	1	2	2	90% Conf. Int.

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SUBDOMAIN *v*-Scale Scores

60:0–64:11

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		*v*-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	—	—	—	—	—	—	—	—	—	—	24
23	—	—	—	—	—	—	—	—	—	—	—	23
22	—	—	—	—	—	—	—	—	—	—	—	22
21	—	—	—	—	—	—	—	—	—	—	—	21
20	—	—	—	—	—	—	—	—	—	—	—	20
19	—	—	—	—	—	—	—	—	—	—	—	19
18	—	—	—	—	—	—	—	—	—	—	—	18
17	—	—	—	—	—	—	—	—	—	80	—	17
16	40	108	50	82	48	88	76	62	60	—	72	16
15	—	—	—	—	—	—	—	—	—	—	—	15
14	—	—	—	—	—	—	—	—	—	79	—	14
13	—	107	49	81	47	87	74–75	61	57–59	76–78	71	13
12	39	106	47–48	80	46	85–86	73	59–60	54–56	73–75	—	12
11	—	105	43–46	78–79	43–45	81–84	71–72	57–58	48–53	69–72	70	11
10	38	102–104	40–42	76–77	40–42	76–80	68–70	53–56	44–47	65–68	69	10
9	37	96–101	37–39	74–75	38–39	72–75	66–67	48–52	43	62–64	68	9
8	36	94–95	36	73	36–37	67–71	64–65	44–47	42	61	66–67	8
7	35	92–93	33–35	68–72	29–35	48–66	62–63	41–43	39–41	47–60	64–65	7
6	33–34	90–91	32	66–67	28	43–47	60–61	38–40	38	43–46	63	6
5	31–32	86–89	—	63–65	27	39–42	58–59	34–37	36–37	37–42	61–62	5
4	30	83–85	30–31	61–62	26	34–38	56–57	30–33	34–35	31–36	59–60	4
3	28–29	79–82	28–29	57–60	25	31–33	54–55	25–29	32–33	24–30	57–58	3
2	26–27	74–78	24–27	53–56	24	26–30	51–53	19–24	30–31	15–23	55–56	2
1	0–25	0–73	0–23	0–52	0–23	0–25	0–50	0–18	0–29	0–14	0–54	1
90% Conf. Int.	3	1	2	2	2	2	2	2	1	2	2	90% Conf. Int.

65:0–69:11

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		*v*-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	—	—	—	—	—	—	—	—	—	—	24
23	—	—	—	—	—	—	—	—	—	—	—	23
22	—	—	—	—	—	—	—	—	—	—	—	22
21	—	—	—	—	—	—	—	—	—	—	—	21
20	—	—	—	—	—	—	—	—	—	—	—	20
19	—	—	—	—	—	—	—	—	—	—	—	19
18	—	—	—	—	—	—	—	—	—	—	—	18
17	—	—	—	—	—	—	—	—	—	80	—	17
16	40	108	50	82	48	88	76	62	60	—	72	16
15	—	—	—	—	—	—	—	—	—	79	—	15
14	—	—	—	—	—	—	—	—	—	76–78	—	14
13	—	107	48–49	81	47	86–87	74–75	60–61	57–59	73–75	71	13
12	39	106	46–47	80	45–46	82–85	72–73	58–59	54–56	69–72	70	12
11	—	105	43–45	78–79	42–44	76–81	70–71	54–57	48–53	65–68	69	11
10	37–38	101–104	38–42	74–77	38–41	72–75	68–69	49–53	44–47	62–64	68	10
9	36	94–100	36–37	73	36–37	67–71	65–67	44–48	43	61	66–67	9
8	35	92–93	33–35	68–72	29–35	48–66	62–64	41–43	39–42	47–60	64–65	8
7	30–34	82–91	27–32	58–67	10–28	17–47	60–61	30–40	31–38	34–46	60–63	7
6	28–29	78–81	25–26	55–57	8–9	13–16	59	26–29	27–30	29–33	58–59	6
5	26–27	72–77	22–24	49–54	7	10–12	58	20–25	25–26	19–28	55–57	5
4	24–25	66–71	19–21	44–48	6	7–9	56–57	14–19	23–24	10–18	53–54	4
3	21–23	58–65	15–18	37–43	5	5–6	54–55	6–13	21–22	0–9	49–52	3
2	17–20	48–57	11–14	29–36	4	3–4	51–53	0–5	19–20	—	45–48	2
1	0–16	0–47	0–10	0–28	0–3	0–2	0–50	—	0–18	—	0–44	1
90% Conf. Int.	3	1	2	2	2	2	2	2	1	2	2	90% Conf. Int.

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70:0–79:11

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		v-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	—	—	—	—	—	—	—	—	—	—	24
23	—	—	—	—	—	—	—	—	—	—	—	23
22	—	—	—	—	—	—	—	—	—	—	—	22
21	—	—	—	—	—	—	—	—	—	—	—	21
20	—	—	—	—	—	—	—	—	—	—	—	20
19	—	—	—	—	—	—	—	—	—	—	—	19
18	—	—	—	—	—	—	—	—	—	80	—	18
17	—	—	50	—	48	—	76	62	—	—	72	17
16	40	108	—	82	—	88	—	—	60	79	—	16
15	—	—	—	—	—	—	—	—	—	76–78	—	15
14	—	—	48–49	—	47	86–87	74–75	60–61	59	73–75	71	14
13	—	107	46–47	81	45–46	82–85	72–73	58–59	57–58	69–72	70	13
12	39	105–106	43–45	78–80	42–44	76–81	70–71	54–57	54–56	65–68	69	12
11	37–38	101–104	38–42	74–77	38–41	72–75	68–69	49–53	49–53	59–64	68	11
10	36	94–100	36–37	73	36–37	64–71	65–67	44–48	43–48	53–58	66–67	10
9	35	92–93	33–35	68–72	29–35	48–63	62–64	41–43	39–42	47–52	64–65	9
8	30–34	82–91	27–32	58–67	10–28	17–47	60–61	30–40	31–38	34–46	60–63	8
7	28–29	78–81	26	52–57	2–9	8–16	57–59	27–29	26–30	29–33	59	7
6	26–27	75–77	24–25	48–51	1	7	55–56	24–26	23–25	24–28	57–58	6
5	23–25	69–74	20–23	41–47	0	6	52–54	18–23	20–22	16–23	55–56	5
4	21–22	64–68	17–19	34–40	—	5	50–51	12–17	17–19	8–15	53–54	4
3	17–20	57–63	13–16	25–33	—	4	46–49	5–11	15–16	0–7	49–52	3
2	13–16	48–56	8–12	15–24	—	0–3	42–45	0–4	11–14	—	45–48	2
1	0–12	0–47	0–7	0–14	—	—	0–41	—	0–10	—	0–44	1
90% Conf. Int.	3 (1)	1 (1)	2 (2)	2 (1)	2 (2)	2 (1)	2 (2)	2 (1)	1 (2)	2 (1)	2 (3)	90% Conf. Int.

80:0–90:11

v-Scale Score	Communication			Daily Living Skills			Socialization			Motor Skills		v-Scale Score
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
	Raw Score											
24	—	—	—	—	—	—	—	—	—	—	—	24
23	—	—	—	—	—	—	—	—	—	—	—	23
22	—	—	—	—	—	—	—	—	—	—	—	22
21	—	—	—	—	—	—	—	—	—	—	—	21
20	—	—	—	—	—	—	—	—	—	—	—	20
19	—	—	—	—	—	—	—	—	—	—	—	19
18	—	—	—	—	—	—	—	—	—	79–80	—	18
17	—	—	50	—	48	—	76	62	—	76–78	72	17
16	40	108	—	82	—	88	—	—	60	73–75	—	16
15	—	—	48–49	—	—	86–87	—	60–61	—	70–72	—	15
14	—	—	46–47	—	45–47	82–85	72–75	58–59	59	59–69	70–71	14
13	—	107	—	81	42–44	64–81	70–71	54–57	57–58	53–58	68–69	13
12	37–39	101–106	38–45	74–80	36–41	—	—	49–53	54–56	—	66–67	12
11	35–36	94–100	33–37	68–73	29–35	48–63	65–69	42–48	49–53	47–52	64–65	11
10	33–34	87–93	30–32	62–67	19–28	31–47	62–64	36–41	37–48	40–46	61–63	10
9	30–32	82–86	27–29	58–61	10–18	17–30	60–61	30–35	31–36	34–39	60	9
8	—	—	—	—	—	—	—	—	—	—	—	8
7	28–29	78–81	26	52–57	2–9	8–16	57–59	27–29	26–30	29–33	59	7
6	26–27	75–77	24–25	48–51	0–1	4–7	55–56	24–26	24–25	24–28	57–58	6
5	23–25	69–74	20–23	41–47	—	0–3	52–54	18–23	20–23	16–23	55–56	5
4	21–22	64–68	17–19	34–40	—	—	50–51	12–17	16–19	8–15	53–54	4
3	17–20	57–63	13–16	25–33	—	—	46–49	5–11	12–15	0–7	49–52	3
2	13–16	48–56	8–12	15–24	—	—	42–45	0–4	6–11	—	45–48	2
1	0–12	0–47	0–7	0–14	—	—	0–41	—	0–5	—	0–44	1
90% Conf. Int.	1	1	2	1	2	1	2	1	2	1	3	90% Conf. Int.

Table B.2: Standard Scores Corresponding to Sums of Subdomain *v*-Scale Scores and Sums of Domain Standard Scores

0:0:0–0:11:30						
Standard Score	Communication	Daily Living Skills	Socialization	Motor Skills	Adaptive Behavior Composite*	Percentile Rank
160	—	—	—	—	626–640	>99
159	—	—	—	—	621–625	>99
158	—	—	—	—	616–620	>99
157	—	—	—	—	611–615	>99
156	—	—	—	—	606–610	>99
155	—	—	—	—	601–605	>99
154	—	—	—	—	597–600	>99
153	—	—	—	—	592–596	>99
152	—	—	48	—	587–591	>99
151	—	—	—	—	583–586	>99
150	—	—	—	—	578–582	>99
149	—	—	47	—	574–577	>99
148	—	—	—	—	570–573	>99
147	—	—	—	—	565–569	>99
146	—	—	46	—	561–564	>99
145	—	—	—	—	557–560	>99
144	—	—	—	48	553–556	>99
143	48	24	45	—	549–552	>99
142	—	—	—	47	545–548	>99
141	47	—	—	46	541–544	>99
140	—	23	44	—	537–540	>99
139	46	—	—	45	533–536	>99
138	—	—	—	—	529–532	99
137	45	—	43	44	525–528	99
136	44	22	—	43	521–524	99
135	—	—	42	—	518–520	99
134	43	—	—	42	514–517	99
133	—	—	—	—	510–513	99
132	42	—	41	41	507–509	98
131	—	21	—	—	503–506	98
130	41	—	—	—	499–502	98
129	—	—	40	40	496–498	97
128	—	—	—	—	492–495	97
127	40	20	—	39	489–491	96
126	—	—	39	—	485–488	96
125	39	—	—	38	482–484	95
124	—	—	—	—	479–481	95
123	38	—	38	—	475–478	94
122	—	19	—	37	472–474	93
121	—	—	—	—	468–471	92
120	37	—	37	—	465–467	91
119	—	—	—	36	462–464	90
118	36	—	36	—	459–461	88
117	—	18	—	—	455–458	87
116	—	—	—	35	452–454	86
115	35	—	35	—	449–451	84
114	—	—	—	—	445–448	82
113	—	—	—	34	442–444	81
112	34	—	34	—	439–441	79
111	—	17	—	—	436–438	77
110	—	—	—	33	432–435	75
109	33	—	33	—	429–431	73
108	—	—	—	—	426–428	70
107	—	—	—	—	423–425	68
106	32	16	32	32	420–422	66
105	—	—	—	—	416–419	63
104	—	—	—	—	413–415	61
103	31	—	31	31	410–412	58
102	—	—	—	—	407–409	55
101	—	—	—	—	403–406	53
100	30	15	30	30	400–402	50
99	—	—	—	—	397–399	47
98	—	—	—	—	394–396	45
97	—	—	29	—	390–393	42
96	29	—	—	—	387–389	39
95	—	—	—	29	384–386	37
94	—	14	28	—	380–383	34
93	28	—	—	—	377–379	32
92	—	—	—	—	374–376	30
91	—	—	27	28	370–373	27

0:0:0–0:11:30						
Standard Score	Communication	Daily Living Skills	Socialization	Motor Skills	Adaptive Behavior Composite*	Percentile Rank
90	—	—	—	—	367–369	25
89	27	—	—	—	364–366	23
88	—	13	—	—	360–363	21
87	—	—	26	27	357–359	19
86	—	—	—	—	353–356	18
85	26	—	—	—	350–352	16
84	—	—	25	—	346–349	14
83	—	—	—	26	342–345	13
82	25	12	—	—	339–341	12
81	—	—	24	—	335–338	10
80	—	—	—	25	332–334	9
79	—	—	—	—	328–331	8
78	24	—	—	—	324–327	7
77	—	11	23	—	320–323	6
76	—	—	—	24	316–319	5
75	—	—	—	—	313–315	5
74	23	—	—	—	309–312	4
73	—	—	22	23	305–308	4
72	—	10	—	—	301–304	3
71	—	—	—	—	297–300	3
70	22	—	21	—	293–296	2
69	—	—	—	22	288–292	2
68	—	—	—	—	284–287	2
67	—	9	—	—	280–283	1
66	21	—	20	21	276–279	1
65	—	—	—	—	271–275	1
64	—	—	—	—	267–270	1
63	—	—	—	20	262–266	1
62	20	8	19	—	258–261	1
61	—	—	—	19	253–257	<1
60	—	—	—	—	249–252	<1
59	19	—	—	—	245–248	<1
58	—	7	18	18	241–244	<1
57	—	—	—	—	237–240	<1
56	—	—	—	17	233–236	<1
55	18	—	—	—	229–232	<1
54	—	6	—	16	224–228	<1
53	—	—	17	—	219–223	<1
52	17	—	—	—	214–218	<1
51	—	5	—	15	210–213	<1
50	—	—	—	—	206–209	<1
49	16	—	16	14	202–205	<1
48	—	4	—	—	199–201	<1
47	—	—	—	13	195–198	<1
46	—	—	—	12	191–194	<1
45	15	—	—	—	188–190	<1
44	—	3	14–15	—	183–187	<1
43	—	—	—	—	179–182	<1
42	14	—	—	—	174–178	<1
41	—	—	—	—	169–173	<1
40	13	2	13	—	164–168	<1
39	—	—	—	—	160–163	<1
38	—	—	—	—	155–159	<1
37	12	—	—	11	151–154	<1
36	—	1	12	—	146–150	<1
35	—	—	—	—	140–145	<1
34	11	—	—	10	136–139	<1
33	—	—	11	—	132–135	<1
32	—	—	—	—	129–131	<1
31	10	—	—	9	125–128	<1
30	—	—	—	—	121–124	<1
29	—	—	10	—	117–120	<1
28	9	—	—	8	112–116	<1
27	—	—	—	—	107–111	<1
26	—	—	—	—	103–106	<1
25	8	—	9	7	99–102	<1
24	—	—	—	—	95–98	<1
23	—	—	—	—	91–94	<1
22	2–7	—	—	2–6	87–90	<1
21	—	—	2–8	—	83–86	<1
20	—	—	—	—	80–82	<1

*Sum of domain standard scores

continued on next page

1:0–1:11						
Standard Score	Communication	Daily Living Skills	Socialization	Motor Skills	Adaptive Behavior Composite*	Percentile Rank
160	—	72	—	—	626–640	>99
159	—	—	—	—	621–625	>99
158	—	—	—	—	616–620	>99
157	—	71	—	—	611–615	>99
156	—	—	—	—	606–610	>99
155	—	70	—	—	601–605	>99
154	—	—	72	—	597–600	>99
153	48	69	—	—	592–596	>99
152	—	—	71	—	587–591	>99
151	47	—	—	—	583–586	>99
150	—	68	70	48	578–582	>99
149	—	—	69	—	574–577	>99
148	46	67	—	47	570–573	>99
147	—	—	68	—	565–569	>99
146	—	66	—	46	561–564	>99
145	45	—	67	—	557–560	>99
144	—	65	—	—	553–556	>99
143	44	—	66	45	549–552	>99
142	—	64	—	—	545–548	>99
141	—	—	65	44	541–544	>99
140	43	63	—	—	537–540	>99
139	—	—	64	—	533–536	>99
138	—	—	—	43	529–532	99
137	42	62	63	—	525–528	99
136	—	—	—	—	521–524	99
135	—	61	62	42	518–520	99
134	41	—	—	—	514–517	99
133	—	60	61	—	510–513	99
132	—	—	—	41	507–509	98
131	40	59	60	—	503–506	98
130	—	—	—	—	499–502	98
129	—	58	59	40	496–498	97
128	39	—	—	—	492–495	97
127	—	57	58	—	489–491	96
126	—	—	—	39	485–488	96
125	—	56	57	—	482–484	95
124	38	—	—	—	479–481	95
123	—	55	56	—	475–478	94
122	—	—	—	38	472–474	93
121	37	54	55	—	468–471	92
120	—	—	—	—	465–467	91
119	—	53	54	—	462–464	90
118	—	—	—	37	459–461	88
117	36	52	53	—	455–458	87
116	—	—	—	—	452–454	86
115	—	51	52	—	449–451	84
114	—	—	—	—	445–448	82
113	35	50	51	36	442–444	81
112	—	—	—	—	439–441	79
111	—	49	—	35	436–438	77
110	—	—	50	—	432–435	75
109	34	48	—	—	429–431	73
108	—	—	49	34	426–428	70
107	—	47	—	—	423–425	68
106	—	—	48	33	420–422	66
105	33	—	—	—	416–419	63
104	—	46	47	32	413–415	61
103	—	—	—	—	410–412	58
102	32	—	46	31	407–409	55
101	—	—	—	—	403–406	53
100	30–31	45	45	30	400–402	50
99	—	44	—	—	397–399	47
98	—	43	44	—	394–396	45
97	29	—	—	—	390–393	42
96	—	42	43	—	387–389	39
95	—	—	—	29	384–386	37
94	28	—	42	—	380–383	34
93	—	41	—	—	377–379	32
92	—	—	41	—	374–376	30
91	—	40	—	—	370–373	27

*Sum of domain standard scores

1:0–1:11						
Standard Score	Communication	Daily Living Skills	Socialization	Motor Skills	Adaptive Behavior Composite*	Percentile Rank
90	27	—	40	28	367–369	25
89	—	—	—	—	364–366	23
88	—	39	39	—	360–363	21
87	26	—	—	—	357–359	19
86	—	38	38	—	353–356	18
85	—	—	—	—	350–352	16
84	25	—	37	27	346–349	14
83	—	37	—	—	342–345	13
82	—	—	36	—	339–341	12
81	—	—	—	26	335–338	10
80	24	36	35	—	332–334	9
79	—	—	—	—	328–331	8
78	—	—	34	25	324–327	7
77	23	35	—	—	320–323	6
76	—	—	33	24	316–319	5
75	—	34	32	—	313–315	5
74	—	—	—	23	309–312	4
73	22	—	31	—	305–308	4
72	—	—	—	—	301–304	3
71	21	33	30	22	297–300	3
70	—	—	29	—	293–296	2
69	20	—	—	21	288–292	2
68	—	32	28	—	284–287	2
67	—	—	—	20	280–283	1
66	19	—	27	—	276–279	1
65	—	31	26	19	271–275	1
64	18	—	—	—	267–270	1
63	—	—	25	18	262–266	1
62	17	—	24	—	258–261	1
61	—	30	—	17	253–257	<1
60	16	—	23	16	249–252	<1
59	—	—	22	—	245–248	<1
58	15	—	—	15	241–244	<1
57	—	29	21	14	237–240	<1
56	14	—	20	—	233–236	<1
55	—	—	—	13	229–232	<1
54	13	—	19	12	224–228	<1
53	—	—	18	—	219–223	<1
52	12	28	—	11	214–218	<1
51	—	—	—	—	210–213	<1
50	—	—	17	10	206–209	<1
49	11	—	—	—	202–205	<1
48	—	27	16	9	199–201	<1
47	—	—	15	8	195–198	<1
46	10	—	—	—	191–194	<1
45	—	—	14	7	188–190	<1
44	9	—	—	—	183–187	<1
43	—	—	13	6	179–182	<1
42	8	26	12	5	174–178	<1
41	—	—	—	—	169–173	<1
40	7	25	11	4	164–168	<1
39	—	—	—	—	160–163	<1
38	6	—	10	3	155–159	<1
37	—	—	9	2	151–154	<1
36	5	24	—	—	146–150	<1
35	—	—	8	—	140–145	<1
34	4	—	—	—	136–139	<1
33	—	23	7	—	132–135	<1
32	—	—	6	—	129–131	<1
31	3	—	—	—	125–128	<1
30	—	—	5	—	121–124	<1
29	2	22	—	—	117–120	<1
28	—	—	4	—	112–116	<1
27	—	—	3	—	107–111	<1
26	—	—	—	—	103–106	<1
25	—	21	—	—	99–102	<1
24	—	—	—	—	95–98	<1
23	—	—	—	—	91–94	<1
22	—	—	—	—	87–90	<1
21	—	3–20	—	—	83–86	<1
20	—	—	—	—	80–82	<1

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DOMAIN and ABC Standard Scores

2:0–2:11						
Standard Score	Communication	Daily Living Skills	Socialization	Motor Skills	Adaptive Behavior Composite*	Percentile Rank
160	—	70–72	—	48	626–640	>99
159	48	—	—	—	621–625	>99
158	—	—	—	47	616–620	>99
157	—	—	—	—	611–615	>99
156	—	—	72	—	606–610	>99
155	47	69	—	—	601–605	>99
154	—	—	—	46	597–600	>99
153	—	—	71	—	592–596	>99
152	—	68	—	—	587–591	>99
151	—	—	—	—	583–586	>99
150	46	—	70	45	578–582	>99
149	—	—	—	—	574–577	>99
148	—	67	69	—	570–573	>99
147	—	—	—	—	565–569	>99
146	45	—	—	44	561–564	>99
145	—	66	68	—	557–560	>99
144	—	—	—	—	553–556	>99
143	—	—	67	—	549–552	>99
142	44	65	—	43	545–548	>99
141	—	—	—	—	541–544	>99
140	—	—	66	—	537–540	>99
139	43	64	—	—	533–536	>99
138	—	—	65	42	529–532	99
137	—	—	—	—	525–528	99
136	—	63	64	—	521–524	99
135	42	—	—	—	518–520	99
134	—	62	63	41	514–517	99
133	—	—	—	—	510–513	99
132	41	—	—	—	507–509	98
131	—	61	62	40	503–506	98
130	—	—	—	—	499–502	98
129	—	60	61	—	496–498	97
128	40	—	—	—	492–495	97
127	—	59	60	39	489–491	96
126	—	—	—	—	485–488	96
125	39	58	59	—	482–484	95
124	—	—	—	38	479–481	95
123	—	57	58	—	475–478	94
122	38	—	57	—	472–474	93
121	—	—	—	—	468–471	92
120	—	56	56	37	465–467	91
119	37	—	—	—	462–464	90
118	—	55	55	—	459–461	88
117	—	54	—	36	455–458	87
116	36	—	54	—	452–454	86
115	—	53	—	—	449–451	84
114	—	—	53	35	445–448	82
113	35	52	—	—	442–444	81
112	—	—	52	—	439–441	79
111	—	51	51	34	436–438	77
110	34	—	—	—	432–435	75
109	—	50	50	—	429–431	73
108	—	—	—	33	426–428	70
107	33	49	49	—	423–425	68
106	—	—	—	—	420–422	66
105	—	48	48	32	416–419	63
104	—	47	—	—	413–415	61
103	32	—	47	—	410–412	58
102	—	46	46	31	407–409	55
101	31	—	—	—	403–406	53
100	30	45	45	30	400–402	50
99	—	—	—	—	397–399	47
98	—	44	44	—	394–396	45
97	29	—	—	—	390–393	42
96	—	43	43	29	387–389	39
95	—	42	42	—	384–386	37
94	28	—	—	—	380–383	34
93	—	41	41	28	377–379	32
92	—	—	—	—	374–376	30
91	27	40	40	—	370–373	27

*Sum of domain standard scores

2:0–2:11						
Standard Score	Communication	Daily Living Skills	Socialization	Motor Skills	Adaptive Behavior Composite*	Percentile Rank
90	—	—	—	27	367–369	25
89	26	39	39	—	364–366	23
88	—	—	—	26	360–363	21
87	—	38	38	—	357–359	19
86	25	—	37	—	353–356	18
85	—	37	—	25	350–352	16
84	24	—	36	—	346–349	14
83	—	36	—	—	342–345	13
82	—	35	35	24	339–341	12
81	23	—	—	—	335–338	10
80	—	34	34	—	332–334	9
79	22	—	—	23	328–331	8
78	—	33	33	—	324–327	7
77	—	—	—	22	320–323	6
76	21	—	32	—	316–319	5
75	—	32	—	—	313–315	5
74	20	—	31	21	309–312	4
73	—	31	—	—	305–308	4
72	—	—	30	20	301–304	3
71	19	30	—	—	297–300	3
70	—	—	29	—	293–296	2
69	18	29	—	19	288–292	2
68	—	—	28	—	284–287	2
67	—	28	—	18	280–283	1
66	17	—	—	—	276–279	1
65	—	—	27	—	271–275	1
64	16	27	—	17	267–270	1
63	—	—	26	—	262–266	1
62	—	26	—	16	258–261	1
61	15	—	25	—	253–257	<1
60	—	—	—	—	249–252	<1
59	14	25	—	15	245–248	<1
58	—	—	24	—	241–244	<1
57	—	—	—	14	237–240	<1
56	13	24	23	—	233–236	<1
55	—	—	—	13	229–232	<1
54	12	—	—	—	224–228	<1
53	—	23	22	—	219–223	<1
52	—	—	—	12	214–218	<1
51	—	—	—	—	210–213	<1
50	11	22	21	11	206–209	<1
49	—	—	—	—	202–205	<1
48	10	—	—	10	199–201	<1
47	—	—	20	—	195–198	<1
46	—	21	—	—	191–194	<1
45	9	—	—	9	188–190	<1
44	—	—	19	—	183–187	<1
43	8	19–20	—	8	179–182	<1
42	—	—	—	—	174–178	<1
41	—	—	18	—	169–173	<1
40	7	18	17	7	164–168	<1
39	—	—	—	—	160–163	<1
38	6	17	16	6	155–159	<1
37	—	—	—	—	151–154	<1
36	—	—	—	—	146–150	<1
35	5	16	15	5	140–145	<1
34	—	—	—	—	136–139	<1
33	4	15	14	4	132–135	<1
32	—	—	—	—	129–131	<1
31	—	—	—	—	125–128	<1
30	3	14	13	3	121–124	<1
29	—	—	—	—	117–120	<1
28	2	13	12	2	112–116	<1
27	—	—	—	—	107–111	<1
26	—	—	—	—	103–106	<1
25	—	12	11	—	99–102	<1
24	—	—	—	—	95–98	<1
23	—	11	10	—	91–94	<1
22	—	—	—	—	87–90	<1
21	—	—	—	—	83–86	<1
20	—	3–10	3–9	—	80–82	<1

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3:0–6:11						
Standard Score	Communication	Daily Living Skills	Socialization	Motor Skills	Adaptive Behavior Composite*	Percentile Rank
160	72	—	—	—	626–640	>99
159	71	—	—	—	621–625	>99
158	—	72	—	—	616–620	>99
157	—	—	—	48	611–615	>99
156	70	—	—	—	606–610	>99
155	—	71	72	47	601–605	>99
154	—	—	—	—	597–600	>99
153	—	70	71	—	592–596	>99
152	69	—	—	46	587–591	>99
151	—	—	—	—	583–586	>99
150	—	69	70	—	578–582	>99
149	68	—	—	45	574–577	>99
148	—	68	69	—	570–573	>99
147	67	—	—	—	565–569	>99
146	—	—	68	44	561–564	>99
145	—	67	—	—	557–560	>99
144	66	—	—	—	553–556	>99
143	—	66	67	43	549–552	>99
142	—	—	—	—	545–548	>99
141	65	65	66	—	541–544	>99
140	—	—	—	42	537–540	>99
139	64	—	65	—	533–536	>99
138	—	64	—	—	529–532	99
137	—	—	64	41	525–528	99
136	63	63	—	—	521–524	99
135	—	—	—	—	518–520	99
134	62	62	63	40	514–517	99
133	—	—	—	—	510–513	99
132	—	61	62	—	507–509	98
131	61	—	—	39	503–506	98
130	—	60	61	—	499–502	98
129	60	—	—	—	496–498	97
128	—	—	60	—	492–495	97
127	59	59	—	38	489–491	96
126	—	—	59	—	485–488	96
125	58	58	—	—	482–484	95
124	—	—	58	37	479–481	95
123	57	57	—	—	475–478	94
122	—	—	57	—	472–474	93
121	—	56	—	36	468–471	92
120	56	—	56	—	465–467	91
119	—	55	—	—	462–464	90
118	55	—	55	—	459–461	88
117	—	54	—	35	455–458	87
116	54	—	54	—	452–454	86
115	—	53	—	—	449–451	84
114	53	—	53	34	445–448	82
113	—	52	—	—	442–444	81
112	52	—	52	—	439–441	79
111	—	51	—	33	436–438	77
110	51	—	51	—	432–435	75
109	—	50	—	—	429–431	73
108	50	—	50	—	426–428	70
107	—	49	—	32	423–425	68
106	49	—	49	—	420–422	66
105	—	48	48	—	416–419	63
104	48	—	—	31	413–415	61
103	—	47	47	—	410–412	58
102	47	—	—	—	407–409	55
101	—	46	46	—	403–406	53
100	45–46	45	45	30	400–402	50
99	—	—	—	—	397–399	47
98	—	—	—	—	394–396	45
97	44	44	44	29	390–393	42
96	—	—	—	—	387–389	39
95	43	43	43	—	384–386	37
94	—	—	42	28	380–383	34
93	42	42	—	—	377–379	32
92	—	—	41	—	374–376	30
91	41	41	—	27	370–373	27
90	—	—	40	—	367–369	25
89	40	40	—	—	364–366	23
88	—	—	39	26	360–363	21
87	39	39	—	—	357–359	19
86	—	—	38	—	353–356	18
85	38	38	37	—	350–352	16
84	—	—	—	25	346–349	14
83	37	37	36	—	342–345	13
82	—	—	—	—	339–341	12
81	36	36	35	24	335–338	10
80	—	—	—	—	332–334	9
79	35	35	34	—	328–331	8
78	34	—	—	23	324–327	7
77	—	34	33	—	320–323	6
76	33	—	—	—	316–319	5
75	—	33	32	22	313–315	5
74	32	—	31	—	309–312	4
73	—	32	—	—	305–308	4
72	31	—	30	21	301–304	3
71	—	31	—	—	297–300	3
70	—	—	29	20	293–296	2
69	30	30	—	—	288–292	2
68	—	—	28	—	284–287	2
67	29	—	—	19	280–283	1
66	—	29	27	—	276–279	1
65	28	—	26	—	271–275	1
64	—	28	—	18	267–270	1
63	27	—	25	—	262–266	1
62	—	27	—	—	258–261	1
61	26	—	24	17	253–257	<1
60	—	26	—	—	249–252	<1
59	25	—	23	16	245–248	<1
58	—	25	—	—	241–244	<1
57	24	—	22	—	237–240	<1
56	—	—	—	15	233–236	<1
55	—	24	21	—	229–232	<1
54	23	—	—	14	224–228	<1
53	—	23	20	—	219–223	<1
52	22	—	—	—	214–218	<1
51	—	22	19	13	210–213	<1
50	—	—	—	—	206–209	<1
49	21	—	18	12	202–205	<1
48	—	21	17	—	199–201	<1
47	20	—	—	—	195–198	<1
46	—	20	16	—	191–194	<1
45	—	—	—	—	188–190	<1
44	19	—	15	—	183–187	<1
43	—	19	—	11	179–182	<1
42	17–18	—	14	—	174–178	<1
41	—	18	—	—	169–173	<1
40	16	17	13	10	164–168	<1
39	—	—	—	—	160–163	<1
38	15	16	12	—	155–159	<1
37	—	—	—	9	151–154	<1
36	14	15	11	—	146–150	<1
35	—	—	—	—	140–145	<1
34	13	14	10	8	136–139	<1
33	—	—	9	—	132–135	<1
32	—	—	—	—	129–131	<1
31	12	13	8	7	125–128	<1
30	—	—	—	—	121–124	<1
29	11	12	7	—	117–120	<1
28	—	—	—	6	112–116	<1
27	10	11	6	—	107–111	<1
26	—	—	—	—	103–106	<1
25	9	10	5	5	99–102	<1
24	—	—	—	—	95–98	<1
23	8	9	4	—	91–94	<1
22	—	—	—	2–4	87–90	<1
21	3–7	3–8	3	—	83–86	<1
20	—	—	—	—	80–82	<1

*Sum of domain standard scores

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DOMAIN and ABC Standard Scores

7:0–9:11					
Standard Score	Communication	Daily Living Skills	Socialization	Adaptive Behavior Composite*	Percentile Rank
160	69–72	—	67–72	456–480	>99
159	—	—	—	454–455	>99
158	68	—	—	452–453	>99
157	—	—	66	449–451	>99
156	—	—	—	447–448	>99
155	67	72	—	445–446	>99
154	—	71	—	442–444	>99
153	—	—	65	440–441	>99
152	66	70	—	438–439	>99
151	—	—	—	435–437	>99
150	—	69	—	433–434	>99
149	65	—	64	431–432	>99
148	—	68	—	428–430	>99
147	—	—	—	426–427	>99
146	64	67	—	424–425	>99
145	—	—	63	421–423	>99
144	—	66	—	419–420	>99
143	63	—	—	416–418	>99
142	—	65	—	414–415	>99
141	—	—	62	412–413	>99
140	62	64	—	409–411	>99
139	—	—	—	407–408	>99
138	61	63	61	404–406	99
137	—	—	—	402–403	99
136	—	62	—	399–401	99
135	60	—	60	397–398	99
134	—	61	—	395–396	99
133	—	—	—	392–394	99
132	59	60	59	390–391	98
131	—	—	—	387–389	98
130	58	59	—	385–386	98
129	—	—	58	382–384	97
128	—	—	—	380–381	97
127	57	58	57	377–379	96
126	—	—	—	374–376	96
125	56	57	—	372–373	95
124	—	—	56	369–371	95
123	—	56	—	367–368	94
122	55	—	55	364–366	93
121	—	55	—	362–363	92
120	54	—	—	359–361	91
119	—	54	54	356–358	90
118	—	—	—	354–355	88
117	53	—	53	351–353	87
116	—	53	—	349–350	86
115	52	—	52	346–348	84
114	—	52	—	343–345	82
113	51	—	—	341–342	81
112	—	51	51	338–340	79
111	—	—	—	335–337	77
110	50	50	50	332–334	75
109	—	—	—	330–331	73
108	49	—	49	327–329	70
107	—	49	—	324–326	68
106	48	—	48	321–323	66
105	—	48	—	319–320	63
104	47	—	47	316–318	61
103	—	47	—	313–315	58
102	46	—	46	310–312	55
101	—	46	—	307–309	53
100	45	45	45	305–306	50
99	—	—	—	302–304	47
98	44	—	44	299–301	45
97	—	44	—	296–298	42
96	43	—	43	293–295	39
95	—	43	—	290–292	37
94	42	—	42	287–289	34
93	—	42	—	284–286	32
92	41	—	41	281–283	30
91	—	41	40	278–280	27

*Sum of domain standard scores

7:0–9:11					
Standard Score	Communication	Daily Living Skills	Socialization	Adaptive Behavior Composite*	Percentile Rank
90	40	—	—	275–277	25
89	—	40	39	272–274	23
88	39	—	—	269–271	21
87	—	39	38	266–268	19
86	38	—	—	263–265	18
85	—	38	37	260–262	16
84	37	—	—	257–259	14
83	—	37	36	254–256	13
82	36	—	35	251–253	12
81	35	36	—	248–250	10
80	—	—	34	245–247	9
79	34	35	—	241–244	8
78	—	34	33	238–240	7
77	33	—	—	235–237	6
76	—	33	32	232–234	5
75	32	—	31	229–231	5
74	31	32	—	225–228	4
73	—	31	30	222–224	4
72	30	—	—	219–221	3
71	—	30	29	215–218	3
70	29	—	—	212–214	2
69	28	29	28	209–211	2
68	—	28	27	205–208	2
67	27	—	—	202–204	1
66	—	27	26	198–201	1
65	26	26	—	195–197	1
64	25	—	25	192–194	1
63	—	25	—	188–191	1
62	24	24	24	185–187	1
61	23	23	23	181–184	<1
60	—	—	—	177–180	<1
59	22	22	22	174–176	<1
58	—	21	—	170–173	<1
57	21	20	21	167–169	<1
56	20	—	—	164–166	<1
55	—	19	20	162–163	<1
54	19	18	—	159–161	<1
53	18	—	19	157–158	<1
52	—	17	—	154–156	<1
51	—	16	18	152–153	<1
50	17	15	17	149–151	<1
49	—	—	—	147–148	<1
48	16	14	16	144–146	<1
47	15	13	15	142–143	<1
46	—	—	—	139–141	<1
45	14	12	14	137–138	<1
44	—	—	—	134–136	<1
43	13	11	13	132–133	<1
42	12	—	12	129–131	<1
41	—	—	—	127–128	<1
40	11	10	11	124–126	<1
39	—	—	—	122–123	<1
38	10	9	10	119–121	<1
37	—	—	—	117–118	<1
36	9	—	9	114–116	<1
35	—	8	—	112–113	<1
34	8	—	8	109–111	<1
33	—	7	—	107–108	<1
32	—	—	—	104–106	<1
31	7	—	7	102–103	<1
30	—	6	—	99–101	<1
29	6	—	6	97–98	<1
28	—	5	—	94–96	<1
27	5	—	5	92–93	<1
26	—	—	—	89–91	<1
25	4	4	4	87–88	<1
24	—	—	—	84–86	<1
23	3	3	3	82–83	<1
22	—	—	—	79–81	<1
21	—	—	—	77–78	<1
20	—	—	—	69–76	<1

continued on next page

10:0–10:11					
Standard Score	Communication	Daily Living Skills	Socialization	Adaptive Behavior Composite*	Percentile Rank
160	—	—	—	442–480	>99
159	—	—	—	439–441	>99
158	—	—	—	437–438	>99
157	—	—	—	435–436	>99
156	—	—	—	432–434	>99
155	—	—	—	430–431	>99
154	—	—	—	428–429	>99
153	—	70	—	425–427	>99
152	—	—	—	423–424	>99
151	—	69	—	420–422	>99
150	—	—	—	418–419	>99
149	—	68	—	416–417	>99
148	—	—	—	413–415	>99
147	—	67	66	411–412	>99
146	—	—	—	409–410	>99
145	—	66	65	407–408	>99
144	—	—	—	404–406	>99
143	—	65	64	402–403	>99
142	—	—	—	400–401	>99
141	59	64	63	397–399	>99
140	—	—	—	395–396	>99
139	—	63	—	393–394	>99
138	—	62	62	390–392	99
137	—	—	—	388–389	99
136	58	61	61	386–387	99
135	—	—	60	383–385	99
134	—	—	59	381–382	99
133	57	60	—	379–380	99
132	—	—	58	377–378	98
131	—	—	—	374–376	98
130	—	59	57	372–373	98
129	—	—	—	370–371	97
128	—	58	—	367–369	97
127	56	—	—	365–366	96
126	—	—	56	363–364	96
125	—	—	—	360–362	95
124	—	57	—	358–359	95
123	—	—	55	356–357	94
122	—	56	—	353–355	93
121	55	—	54	351–352	92
120	—	55	—	349–350	91
119	—	54	—	346–348	90
118	54	—	53	344–345	88
117	—	53	—	342–343	87
116	53	—	—	339–341	86
115	—	—	52	337–338	84
114	—	—	—	334–336	82
113	52	52	—	332–333	81
112	—	—	51	330–331	79
111	—	—	—	327–329	77
110	51	51	—	325–326	75
109	—	—	50	322–324	73
108	50	50	—	320–321	70
107	49	—	49	317–319	68
106	—	—	—	315–316	66
105	48	49	48	313–314	63
104	47	—	—	310–312	61
103	—	48	47	308–309	58
102	46	47	46	305–307	55
101	—	46	—	302–304	53
100	45	45	45	300–301	50
99	—	—	—	297–299	47
98	44	—	44	295–296	45
97	—	44	—	292–294	42
96	43	—	43	290–291	39
95	—	43	—	287–289	37
94	42	—	42	284–286	34
93	—	42	—	282–283	32
92	41	—	41	279–281	30
91	—	41	40	276–278	27

*Sum of domain standard scores

10:0–10:11					
Standard Score	Communication	Daily Living Skills	Socialization	Adaptive Behavior Composite*	Percentile Rank
90	40	—	—	274–275	25
89	—	40	39	271–273	23
88	39	—	—	268–270	21
87	—	39	38	265–267	19
86	38	—	—	263–264	18
85	—	38	37	260–262	16
84	37	—	—	257–259	14
83	—	37	36	254–256	13
82	36	—	35	251–253	12
81	35	36	—	248–250	10
80	—	—	34	245–247	9
79	34	35	—	243–244	8
78	—	34	33	240–242	7
77	33	—	—	237–239	6
76	—	33	32	234–236	5
75	32	—	31	231–233	5
74	31	32	—	227–230	4
73	—	31	30	224–226	4
72	30	—	—	221–223	3
71	—	30	29	218–220	3
70	29	—	—	215–217	2
69	28	29	28	212–214	2
68	—	28	27	209–211	2
67	27	—	—	205–208	1
66	—	27	26	202–204	1
65	26	26	—	199–201	1
64	25	—	25	195–198	1
63	—	25	—	192–194	1
62	24	24	24	189–191	1
61	23	23	23	185–188	<1
60	—	—	—	182–184	<1
59	22	22	22	178–181	<1
58	—	21	—	175–177	<1
57	21	20	21	171–174	<1
56	20	—	—	167–170	<1
55	—	19	20	164–166	<1
54	19	18	—	161–163	<1
53	18	—	19	158–160	<1
52	—	17	—	155–157	<1
51	—	16	18	152–154	<1
50	17	15	17	149–151	<1
49	—	—	—	147–148	<1
48	16	14	16	144–146	<1
47	15	13	15	142–143	<1
46	—	—	—	139–141	<1
45	14	12	14	137–138	<1
44	—	—	—	134–136	<1
43	13	11	13	132–133	<1
42	12	—	12	129–131	<1
41	—	—	—	127–128	<1
40	11	10	11	124–126	<1
39	—	—	—	122–123	<1
38	10	9	10	119–121	<1
37	—	—	—	117–118	<1
36	9	—	9	114–116	<1
35	—	8	—	112–113	<1
34	8	—	8	109–111	<1
33	—	7	—	107–108	<1
32	—	—	—	104–106	<1
31	7	—	7	102–103	<1
30	—	6	—	99–101	<1
29	6	—	6	97–98	<1
28	—	5	—	94–96	<1
27	5	—	5	92–93	<1
26	—	—	—	89–91	<1
25	4	4	4	87–88	<1
24	—	—	—	84–86	<1
23	3	3	3	82–83	<1
22	—	—	—	79–81	<1
21	—	—	—	77–78	<1
20	—	—	—	68–76	<1

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DOMAIN and ABC Standard Scores

11:0–11:11					
Standard Score	Communication	Daily Living Skills	Socialization	Adaptive Behavior Composite*	Percentile Rank
160	—	—	—	442–480	>99
159	—	—	—	439–441	>99
158	—	—	—	437–438	>99
157	—	—	—	435–436	>99
156	—	—	—	432–434	>99
155	—	—	—	430–431	>99
154	—	—	—	428–429	>99
153	—	—	—	425–427	>99
152	—	—	—	423–424	>99
151	—	68	—	420–422	>99
150	—	—	—	418–419	>99
149	—	67	65	416–417	>99
148	—	—	—	413–415	>99
147	—	66	64	411–412	>99
146	—	—	—	409–410	>99
145	—	—	63	407–408	>99
144	—	65	—	404–406	>99
143	—	—	—	402–403	>99
142	—	64	62	400–401	>99
141	—	—	—	397–399	>99
140	—	—	—	395–396	>99
139	—	63	61	393–394	>99
138	—	—	60	390–392	99
137	—	62	—	388–389	99
136	—	—	59	386–387	99
135	57	—	—	383–385	99
134	—	61	—	381–382	99
133	—	—	—	379–380	99
132	56	—	58	377–378	98
131	—	60	—	374–376	98
130	55	—	57	372–373	98
129	54	59	56	370–371	97
128	—	—	55	367–369	97
127	53	—	—	365–366	96
126	—	58	54	363–364	96
125	—	—	—	360–362	95
124	52	57	—	358–359	95
123	—	—	—	356–357	94
122	—	56	53	353–355	93
121	—	—	—	351–352	92
120	51	55	—	349–350	91
119	—	—	—	346–348	90
118	—	54	52	344–345	88
117	50	53	—	342–343	87
116	—	—	51	339–341	86
115	49	52	—	337–338	84
114	—	—	50	334–336	82
113	—	51	—	332–333	81
112	—	50	49	330–331	79
111	48	49	—	327–329	77
110	—	—	48	325–326	75
109	—	48	—	322–324	73
108	—	—	—	320–321	70
107	47	—	47	317–319	68
106	—	47	—	315–316	66
105	—	—	—	313–314	63
104	—	—	—	310–312	61
103	46	46	46	308–309	58
102	—	—	—	305–307	55
101	—	—	—	302–304	53
100	45	45	45	300–301	50
99	44	44	44	297–299	47
98	—	—	—	295–296	45
97	—	43	43	292–294	42
96	43	—	42	290–291	39
95	—	42	—	287–289	37
94	42	—	—	284–286	34
93	—	—	41	282–283	32
92	41	41	—	279–281	30
91	—	—	40	276–278	27

*Sum of domain standard scores

11:0–11:11					
Standard Score	Communication	Daily Living Skills	Socialization	Adaptive Behavior Composite*	Percentile Rank
90	40	—	—	274–275	25
89	—	40	39	271–273	23
88	39	—	—	268–270	21
87	—	39	38	265–267	19
86	38	—	—	263–264	18
85	—	38	37	260–262	16
84	37	—	—	257–259	14
83	—	37	36	254–256	13
82	36	—	35	251–253	12
81	35	36	—	248–250	10
80	—	—	34	245–247	9
79	34	35	—	243–244	8
78	—	34	33	240–242	7
77	33	—	—	237–239	6
76	—	33	32	234–236	5
75	32	—	31	231–233	5
74	31	32	—	227–230	4
73	—	31	30	224–226	4
72	30	—	—	221–223	3
71	—	30	29	218–220	3
70	29	—	—	215–217	2
69	28	29	28	212–214	2
68	—	28	27	209–211	2
67	27	—	—	205–208	1
66	—	27	26	202–204	1
65	26	26	—	199–201	1
64	25	—	25	195–198	1
63	—	25	—	192–194	1
62	24	24	24	189–191	1
61	23	23	23	185–188	<1
60	—	—	—	182–184	<1
59	22	22	22	178–181	<1
58	—	21	—	175–177	<1
57	21	20	21	171–174	<1
56	20	—	—	167–170	<1
55	—	19	20	164–166	<1
54	19	18	—	161–163	<1
53	18	—	19	158–160	<1
52	—	17	—	155–157	<1
51	—	16	18	152–154	<1
50	17	15	17	149–151	<1
49	—	—	—	147–148	<1
48	16	14	16	144–146	<1
47	15	13	15	142–143	<1
46	—	—	—	139–141	<1
45	14	12	14	137–138	<1
44	—	—	—	134–136	<1
43	13	11	13	132–133	<1
42	12	—	12	129–131	<1
41	—	—	—	127–128	<1
40	11	10	11	124–126	<1
39	—	—	—	122–123	<1
38	10	9	10	119–121	<1
37	—	—	—	117–118	<1
36	9	—	9	114–116	<1
35	—	8	—	112–113	<1
34	8	—	8	109–111	<1
33	—	7	—	107–108	<1
32	—	—	—	104–106	<1
31	7	—	7	102–103	<1
30	—	6	—	99–101	<1
29	6	—	6	97–98	<1
28	—	5	—	94–96	<1
27	5	—	5	92–93	<1
26	—	—	—	89–91	<1
25	4	4	4	87–88	<1
24	—	—	—	84–86	<1
23	3	3	3	82–83	<1
22	—	—	—	79–81	<1
21	—	—	—	77–78	<1
20	—	—	—	68–76	<1

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12:0–12:11					
Standard Score	Communication	Daily Living Skills	Socialization	Adaptive Behavior Composite*	Percentile Rank
160	—	—	—	442–480	>99
159	—	—	—	439–441	>99
158	—	—	—	437–438	>99
157	—	—	—	435–436	>99
156	—	—	—	432–434	>99
155	—	—	—	430–431	>99
154	—	—	—	428–429	>99
153	—	—	—	425–427	>99
152	—	—	—	423–424	>99
151	—	—	—	420–422	>99
150	—	—	—	418–419	>99
149	—	—	—	416–417	>99
148	—	—	—	413–415	>99
147	—	66	—	411–412	>99
146	—	—	—	409–410	>99
145	—	—	63	407–408	>99
144	—	65	—	404–406	>99
143	—	—	—	402–403	>99
142	—	—	—	400–401	>99
141	—	64	62	397–399	>99
140	—	—	—	395–396	>99
139	—	—	—	393–394	>99
138	—	63	—	390–392	99
137	—	—	—	388–389	99
136	—	62	—	386–387	99
135	55	—	—	383–385	99
134	—	—	—	381–382	99
133	—	61	61	379–380	99
132	—	—	—	377–378	98
131	—	—	60	374–376	98
130	—	—	59	372–373	98
129	—	60	58	370–371	97
128	54	—	57	367–369	97
127	—	59	—	365–366	96
126	—	58	56	363–364	96
125	—	—	—	360–362	95
124	53	57	55	358–359	95
123	—	56	54	356–357	94
122	52	—	53	353–355	93
121	—	55	—	351–352	92
120	51	—	52	349–350	91
119	—	54	—	346–348	90
118	—	53	51	344–345	88
117	—	—	—	342–343	87
116	50	52	—	339–341	86
115	—	—	50	337–338	84
114	—	51	—	334–336	82
113	—	—	—	332–333	81
112	49	50	49	330–331	79
111	—	—	—	327–329	77
110	48	49	—	325–326	75
109	—	—	48	322–324	73
108	47	—	—	320–321	70
107	—	48	47	317–319	68
106	—	—	—	315–316	66
105	—	—	—	313–314	63
104	46	47	46	310–312	61
103	—	—	—	308–309	58
102	—	46	—	305–307	55
101	—	—	—	302–304	53
100	45	45	45	300–301	50
99	44	—	44	297–299	47
98	—	—	—	295–296	45
97	43	44	43	292–294	42
96	—	—	—	290–291	39
95	—	43	42	287–289	37
94	42	—	—	284–286	34
93	—	42	41	282–283	32
92	41	—	—	279–281	30
91	—	41	40	276–278	27

*Sum of domain standard scores

12:0–12:11					
Standard Score	Communication	Daily Living Skills	Socialization	Adaptive Behavior Composite*	Percentile Rank
90	40	—	—	274–275	25
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86	38	—	—	263–264	18
85	—	38	37	260–262	16
84	37	—	—	257–259	14
83	—	37	36	254–256	13
82	36	—	35	251–253	12
81	35	36	—	248–250	10
80	—	—	34	245–247	9
79	34	35	—	243–244	8
78	—	34	33	240–242	7
77	33	—	—	237–239	6
76	—	33	32	234–236	5
75	32	—	31	231–233	5
74	31	32	—	227–230	4
73	—	31	30	224–226	4
72	30	—	—	221–223	3
71	—	30	29	218–220	3
70	29	—	—	215–217	2
69	28	29	28	212–214	2
68	—	28	27	209–211	2
67	27	—	—	205–208	1
66	—	27	26	202–204	1
65	26	26	—	199–201	1
64	25	—	25	195–198	1
63	—	25	—	192–194	1
62	24	24	24	189–191	1
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56	20	—	—	167–170	<1
55	—	19	20	164–166	<1
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53	18	—	19	158–160	<1
52	—	17	—	155–157	<1
51	—	16	18	152–154	<1
50	17	15	17	149–151	<1
49	—	—	—	147–148	<1
48	16	14	16	144–146	<1
47	15	13	15	142–143	<1
46	—	—	—	139–141	<1
45	14	12	14	137–138	<1
44	—	—	—	134–136	<1
43	13	11	13	132–133	<1
42	12	—	12	129–131	<1
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40	11	10	11	124–126	<1
39	—	—	—	122–123	<1
38	10	9	10	119–121	<1
37	—	—	—	117–118	<1
36	9	—	9	114–116	<1
35	—	8	—	112–113	<1
34	8	—	8	109–111	<1
33	—	7	—	107–108	<1
32	—	—	—	104–106	<1
31	7	—	7	102–103	<1
30	—	6	—	99–101	<1
29	6	—	6	97–98	<1
28	—	5	—	94–96	<1
27	5	—	5	92–93	<1
26	—	—	—	89–91	<1
25	4	4	4	87–88	<1
24	—	—	—	84–86	<1
23	3	3	3	82–83	<1
22	—	—	—	79–81	<1
21	—	—	—	77–78	<1
20	—	—	—	68–76	<1

continued on next page

DOMAIN and ABC Standard Scores

13:0–13:11					
Standard Score	Communication	Daily Living Skills	Socialization	Adaptive Behavior Composite*	Percentile Rank
160	—	—	—	442–480	>99
159	—	—	—	439–441	>99
158	—	—	—	437–438	>99
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153	—	—	—	425–427	>99
152	—	—	—	423–424	>99
151	—	—	—	420–422	>99
150	—	—	—	418–419	>99
149	—	—	—	416–417	>99
148	—	66	—	413–415	>99
147	—	—	—	411–412	>99
146	—	—	—	409–410	>99
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143	—	—	62	402–403	>99
142	—	64	—	400–401	>99
141	—	—	—	397–399	>99
140	—	—	61	395–396	>99
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137	—	—	—	388–389	99
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134	—	—	59	381–382	99
133	—	—	—	379–380	99
132	—	—	—	377–378	98
131	54	61	—	374–376	98
130	—	—	58	372–373	98
129	—	60	—	370–371	97
128	—	56–59	57	367–369	97
127	—	55	—	365–366	96
126	—	—	56	363–364	96
125	—	54	—	360–362	95
124	53	—	55	358–359	95
123	—	—	—	356–357	94
122	—	—	54	353–355	93
121	52	53	—	351–352	92
120	—	—	—	349–350	91
119	51	—	53	346–348	90
118	—	52	—	344–345	88
117	—	—	52	342–343	87
116	50	—	—	339–341	86
115	—	51	51	337–338	84
114	—	—	—	334–336	82
113	49	—	50	332–333	81
112	—	50	—	330–331	79
111	—	—	—	327–329	77
110	—	49	49	325–326	75
109	48	—	—	322–324	73
108	—	48	—	320–321	70
107	—	—	—	317–319	68
106	47	—	48	315–316	66
105	—	47	—	313–314	63
104	—	—	—	310–312	61
103	46	—	47	308–309	58
102	—	46	—	305–307	55
101	—	—	46	302–304	53
100	45	45	45	300–301	50
99	—	—	—	297–299	47
98	44	44	—	295–296	45
97	—	—	44	292–294	42
96	—	43	—	290–291	39
95	43	—	43	287–289	37
94	—	—	—	284–286	34
93	42	42	42	282–283	32
92	41	—	41	279–281	30
91	—	41	40	276–278	27

*Sum of domain standard scores

13:0–13:11					
Standard Score	Communication	Daily Living Skills	Socialization	Adaptive Behavior Composite*	Percentile Rank
90	40	—	—	274–275	25
89	—	40	39	271–273	23
88	39	—	—	268–270	21
87	—	39	38	265–267	19
86	38	—	—	263–264	18
85	—	38	37	260–262	16
84	37	—	—	257–259	14
83	—	37	36	254–256	13
82	36	—	35	251–253	12
81	35	36	—	248–250	10
80	—	—	34	245–247	9
79	34	35	—	243–244	8
78	—	34	33	240–242	7
77	33	—	—	237–239	6
76	—	33	32	234–236	5
75	32	—	31	231–233	5
74	31	32	—	227–230	4
73	—	31	30	224–226	4
72	30	—	—	221–223	3
71	—	30	29	218–220	3
70	29	—	—	215–217	2
69	28	29	28	212–214	2
68	—	28	27	209–211	2
67	27	—	—	205–208	1
66	—	27	26	202–204	1
65	26	26	—	199–201	1
64	25	—	25	195–198	1
63	—	25	—	192–194	1
62	24	24	24	189–191	1
61	23	23	23	185–188	<1
60	—	—	—	182–184	<1
59	22	22	22	178–181	<1
58	—	21	—	175–177	<1
57	21	20	21	171–174	<1
56	20	—	—	167–170	<1
55	—	19	20	164–166	<1
54	19	18	—	161–163	<1
53	18	—	19	158–160	<1
52	—	17	—	155–157	<1
51	—	16	18	152–154	<1
50	17	15	17	149–151	<1
49	—	—	—	147–148	<1
48	16	14	16	144–146	<1
47	15	13	15	142–143	<1
46	—	—	—	139–141	<1
45	14	12	14	137–138	<1
44	—	—	—	134–136	<1
43	13	11	13	132–133	<1
42	12	—	12	129–131	<1
41	—	—	—	127–128	<1
40	11	10	11	124–126	<1
39	—	—	—	122–123	<1
38	10	9	10	119–121	<1
37	—	—	—	117–118	<1
36	9	—	9	114–116	<1
35	—	8	—	112–113	<1
34	8	—	8	109–111	<1
33	—	7	—	107–108	<1
32	—	—	—	104–106	<1
31	7	—	7	102–103	<1
30	—	6	—	99–101	<1
29	6	—	6	97–98	<1
28	—	5	—	94–96	<1
27	5	—	5	92–93	<1
26	—	—	—	89–91	<1
25	4	4	4	87–88	<1
24	—	—	—	84–86	<1
23	3	3	3	82–83	<1
22	—	—	—	79–81	<1
21	—	—	—	77–78	<1
20	—	—	—	68–76	<1

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14:0–14:11

Standard Score	Communication	Daily Living Skills	Socialization	Adaptive Behavior Composite*	Percentile Rank
160	—	—	—	442–480	>99
159	—	—	—	439–441	>99
158	—	—	—	437–438	>99
157	—	—	—	435–436	>99
156	—	—	—	432–434	>99
155	—	—	—	430–431	>99
154	—	—	—	428–429	>99
153	—	—	—	425–427	>99
152	—	—	—	423–424	>99
151	—	64	—	420–422	>99
150	—	—	60	418–419	>99
149	—	—	—	416–417	>99
148	—	63	—	413–415	>99
147	—	—	59	411–412	>99
146	—	62	—	409–410	>99
145	—	—	—	407–408	>99
144	—	—	—	404–406	>99
143	—	61	58	402–403	>99
142	—	—	—	400–401	>99
141	—	—	—	397–399	>99
140	—	60	57	395–396	>99
139	—	—	—	393–394	>99
138	—	—	—	390–392	99
137	—	—	—	388–389	99
136	—	59	—	386–387	99
135	—	—	—	383–385	99
134	52	58	56	381–382	99
133	—	—	—	379–380	99
132	—	—	—	377–378	98
131	—	57	—	374–376	98
130	—	—	—	372–373	98
129	—	—	55	370–371	97
128	—	—	—	367–369	97
127	—	56	—	365–366	96
126	—	—	—	363–364	96
125	—	55	54	360–362	95
124	51	—	—	358–359	95
123	—	54	53	356–357	94
122	—	—	—	353–355	93
121	—	53	52	351–352	92
120	50	—	—	349–350	91
119	—	52	—	346–348	90
118	—	—	51	344–345	88
117	—	51	—	342–343	87
116	49	—	—	339–341	86
115	—	—	50	337–338	84
114	—	50	—	334–336	82
113	—	—	—	332–333	81
112	48	49	49	330–331	79
111	—	—	—	327–329	77
110	—	—	48	325–326	75
109	—	48	—	322–324	73
108	47	—	47	320–321	70
107	—	47	—	317–319	68
106	—	—	—	315–316	66
105	—	—	—	313–314	63
104	46	46	46	310–312	61
103	—	—	—	308–309	58
102	—	—	—	305–307	55
101	—	—	—	302–304	53
100	45	45	45	300–301	50
99	—	44	—	297–299	47
98	44	—	—	295–296	45
97	—	43	44	292–294	42
96	—	—	—	290–291	39
95	43	42	—	287–289	37
94	—	—	43	284–286	34
93	—	—	—	282–283	32
92	42	—	42	279–281	30
91	—	41	—	276–278	27

*Sum of domain standard scores

14:0–14:11

Standard Score	Communication	Daily Living Skills	Socialization	Adaptive Behavior Composite*	Percentile Rank
90	—	—	—	274–275	25
89	41	40	41	271–273	23
88	—	—	—	268–270	21
87	40	39	40	265–267	19
86	—	—	—	263–264	18
85	39	38	39	260–262	16
84	—	—	38	257–259	14
83	38	37	—	254–256	13
82	—	—	37	251–253	12
81	37	36	—	248–250	10
80	36	—	36	245–247	9
79	—	35	35	243–244	8
78	35	—	—	240–242	7
77	34	34	34	237–239	6
76	—	33	33	234–236	5
75	33	—	—	231–233	5
74	32	32	32	227–230	4
73	—	—	31	224–226	4
72	31	31	—	221–223	3
71	30	30	30	218–220	3
70	—	—	29	215–217	2
69	29	29	—	212–214	2
68	28	28	28	209–211	2
67	27	—	27	205–208	1
66	26	27	—	202–204	1
65	—	26	26	199–201	1
64	25	—	25	195–198	1
63	24	25	24	192–194	1
62	23	24	—	189–191	1
61	22	23	23	185–188	<1
60	—	—	22	182–184	<1
59	21	22	—	178–181	<1
58	—	21	21	175–177	<1
57	20	20	20	171–174	<1
56	—	19	19	167–170	<1
55	—	—	—	164–166	<1
54	19	18	18	161–163	<1
53	—	—	—	158–160	<1
52	18	17	17	155–157	<1
51	—	16	16	152–154	<1
50	—	15	—	149–151	<1
49	17	—	15	147–148	<1
48	—	14	14	144–146	<1
47	16	13	—	142–143	<1
46	—	—	13	139–141	<1
45	15	12	12	137–138	<1
44	—	—	—	134–136	<1
43	14	11	11	132–133	<1
42	13	—	10	129–131	<1
41	—	—	—	127–128	<1
40	12	10	9	124–126	<1
39	—	—	—	122–123	<1
38	11	9	—	119–121	<1
37	10	—	8	117–118	<1
36	—	—	—	114–116	<1
35	9	8	—	112–113	<1
34	—	—	7	109–111	<1
33	8	7	—	107–108	<1
32	—	—	6	104–106	<1
31	—	—	—	102–103	<1
30	7	6	—	99–101	<1
29	—	—	5	97–98	<1
28	6	5	—	94–96	<1
27	—	—	—	92–93	<1
26	5	—	4	89–91	<1
25	—	4	—	87–88	<1
24	4	—	—	84–86	<1
23	—	3	3	82–83	<1
22	3	—	—	79–81	<1
21	—	—	—	77–78	<1
20	—	—	—	68–76	<1

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DOMAIN and ABC Standard Scores

15:0–15:11					
Standard Score	Communication	Daily Living Skills	Socialization	Adaptive Behavior Composite*	Percentile Rank
160	—	—	—	442–480	>99
159	—	—	—	439–441	>99
158	—	—	—	437–438	>99
157	—	—	—	435–436	>99
156	—	—	—	432–434	>99
155	—	—	—	430–431	>99
154	—	—	—	428–429	>99
153	—	—	—	425–427	>99
152	—	—	—	423–424	>99
151	—	—	—	420–422	>99
150	—	63	—	418–419	>99
149	—	—	—	416–417	>99
148	—	—	—	413–415	>99
147	—	62	—	411–412	>99
146	—	—	—	409–410	>99
145	—	61	—	407–408	>99
144	—	—	—	404–406	>99
143	—	—	—	402–403	>99
142	—	60	—	400–401	>99
141	—	—	—	397–399	>99
140	—	—	—	395–396	>99
139	—	59	—	393–394	>99
138	—	—	—	390–392	99
137	—	—	—	388–389	99
136	—	—	—	386–387	99
135	—	58	59	383–385	99
134	—	—	—	381–382	99
133	—	57	—	379–380	99
132	—	—	58	377–378	98
131	—	56	—	374–376	98
130	—	—	57	372–373	98
129	—	55	—	370–371	97
128	—	—	56	367–369	97
127	—	54	—	365–366	96
126	—	—	—	363–364	96
125	—	—	—	360–362	95
124	—	—	—	358–359	95
123	—	53	—	356–357	94
122	—	—	55	353–355	93
121	—	—	—	351–352	92
120	—	—	—	349–350	91
119	—	—	—	346–348	90
118	51	52	54	344–345	88
117	—	—	—	342–343	87
116	—	—	53	339–341	86
115	—	—	—	337–338	84
114	—	51	—	334–336	82
113	—	—	52	332–333	81
112	50	—	—	330–331	79
111	—	50	51	327–329	77
110	—	—	—	325–326	75
109	49	49	—	322–324	73
108	—	—	50	320–321	70
107	—	48	—	317–319	68
106	—	—	49	315–316	66
105	48	47	—	313–314	63
104	—	—	48	310–312	61
103	47	—	47	308–309	58
102	—	46	—	305–307	55
101	46	—	46	302–304	53
100	45	45	45	300–301	50
99	—	—	—	297–299	47
98	—	44	—	295–296	45
97	—	—	44	292–294	42
96	44	43	—	290–291	39
95	—	—	—	287–289	37
94	—	42	43	284–286	34
93	43	—	—	282–283	32
92	—	41	—	279–281	30
91	42	—	42	276–278	27

*Sum of domain standard scores

15:0–15:11					
Standard Score	Communication	Daily Living Skills	Socialization	Adaptive Behavior Composite*	Percentile Rank
90	—	—	—	274–275	25
89	41	40	41	271–273	23
88	—	—	—	268–270	21
87	40	39	40	265–267	19
86	—	—	—	263–264	18
85	39	38	39	260–262	16
84	—	—	38	257–259	14
83	38	37	—	254–256	13
82	—	—	37	251–253	12
81	37	36	—	248–250	10
80	36	—	36	245–247	9
79	—	35	35	243–244	8
78	35	—	—	240–242	7
77	34	34	34	237–239	6
76	—	33	33	234–236	5
75	33	—	—	231–233	5
74	32	32	32	227–230	4
73	—	—	31	224–226	4
72	31	31	—	221–223	3
71	30	30	30	218–220	3
70	—	—	29	215–217	2
69	29	29	—	212–214	2
68	28	28	28	209–211	2
67	27	—	27	205–208	1
66	26	27	—	202–204	1
65	—	26	26	199–201	1
64	25	—	25	195–198	1
63	24	25	24	192–194	1
62	23	24	—	189–191	1
61	22	23	23	185–188	<1
60	—	—	22	182–184	<1
59	21	22	—	178–181	<1
58	—	21	21	175–177	<1
57	20	20	20	171–174	<1
56	—	19	19	167–170	<1
55	—	—	—	164–166	<1
54	19	18	18	161–163	<1
53	—	—	—	158–160	<1
52	18	17	17	155–157	<1
51	—	16	16	152–154	<1
50	—	15	—	149–151	<1
49	17	—	15	147–148	<1
48	—	14	14	144–146	<1
47	16	13	—	142–143	<1
46	—	—	13	139–141	<1
45	15	12	12	137–138	<1
44	—	—	—	134–136	<1
43	14	11	11	132–133	<1
42	13	—	10	129–131	<1
41	—	—	—	127–128	<1
40	12	10	9	124–126	<1
39	—	—	—	122–123	<1
38	11	9	—	119–121	<1
37	10	—	8	117–118	<1
36	—	—	—	114–116	<1
35	9	8	—	112–113	<1
34	—	—	7	109–111	<1
33	8	7	—	107–108	<1
32	—	—	6	104–106	<1
31	—	—	—	102–103	<1
30	7	6	—	99–101	<1
29	—	—	5	97–98	<1
28	6	5	—	94–96	<1
27	—	—	—	92–93	<1
26	5	—	4	89–91	<1
25	—	4	—	87–88	<1
24	4	—	—	84–86	<1
23	—	3	3	82–83	<1
22	3	—	—	79–81	<1
21	—	—	—	77–78	<1
20	—	—	—	68–76	<1

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16:0–17:11					
Standard Score	Communication	Daily Living Skills	Socialization	Adaptive Behavior Composite*	Percentile Rank
160	—	—	—	—	>99
159	—	—	—	—	>99
158	—	—	—	—	>99
157	—	—	—	—	>99
156	—	—	—	—	>99
155	—	—	—	—	>99
154	—	—	—	—	>99
153	—	—	—	—	>99
152	—	—	—	—	>99
151	—	—	—	—	>99
150	—	—	—	—	>99
149	—	—	—	—	>99
148	—	—	—	—	>99
147	—	—	—	—	>99
146	—	—	—	—	>99
145	—	—	—	—	>99
144	—	—	—	—	>99
143	—	—	—	—	>99
142	—	—	—	—	>99
141	—	—	—	374–379	>99
140	—	—	—	371–373	>99
139	—	—	—	368–370	>99
138	—	—	—	365–367	99
137	—	—	—	364	99
136	—	59	—	363	99
135	—	—	—	362	99
134	—	58	—	361	99
133	—	—	—	360	99
132	—	57	—	359	98
131	—	—	—	358	98
130	—	56	—	357	98
129	—	—	—	356	97
128	—	—	—	355	97
127	—	—	—	354	96
126	—	55	56	353	96
125	—	—	—	351–352	95
124	—	—	—	350	95
123	—	54	—	348–349	94
122	—	—	55	346–347	93
121	—	—	—	345	92
120	—	—	—	343–344	91
119	—	53	54	341–342	90
118	—	—	—	339–340	88
117	48	52	—	338	87
116	—	—	—	336–337	86
115	—	51	53	334–335	84
114	—	—	—	332–333	82
113	—	50	52	330–331	81
112	—	—	—	329	79
111	—	—	—	327–328	77
110	47	49	51	325–326	75
109	—	—	—	323–324	73
108	—	—	—	321–322	70
107	—	—	50	319–320	68
106	46	48	—	317–318	66
105	—	—	49	315–316	63
104	—	47	—	313–314	61
103	—	—	48	311–312	58
102	—	46	47	309–310	55
101	—	—	46	307–308	53
100	45	45	45	304–306	50
99	—	—	—	302–303	47
98	—	—	—	300–301	45
97	44	44	—	298–299	42
96	—	—	44	295–297	39
95	—	43	—	293–294	37
94	43	—	—	291–292	34
93	—	42	43	288–290	32
92	—	—	—	285–287	30
91	42	41	42	283–284	27
90	—	—	—	280–282	25
89	41	40	41	278–279	23
88	—	—	—	275–277	21
87	40	39	40	272–274	19
86	—	—	—	269–271	18
85	39	38	39	266–268	16
84	—	—	38	263–265	14
83	38	37	—	260–262	13
82	—	—	37	257–259	12
81	37	36	—	254–256	10
80	36	—	36	250–253	9
79	—	35	35	247–249	8
78	35	—	—	243–246	7
77	34	34	34	240–242	6
76	—	33	33	236–239	5
75	33	—	—	232–235	5
74	32	32	32	229–231	4
73	—	—	31	225–228	4
72	31	31	—	221–224	3
71	30	30	30	216–220	3
70	—	—	29	213–215	2
69	29	29	—	211–212	2
68	28	28	28	209–210	2
67	27	—	27	207–208	1
66	26	27	—	204–206	1
65	—	26	26	201–203	1
64	25	—	25	197–200	1
63	24	25	24	194–196	1
62	23	24	—	191–193	1
61	22	23	23	187–190	<1
60	—	—	22	184–186	<1
59	21	22	—	180–183	<1
58	—	21	21	177–179	<1
57	20	20	20	173–176	<1
56	—	19	19	169–172	<1
55	—	—	—	166–168	<1
54	19	18	18	162–165	<1
53	—	—	—	158–161	<1
52	18	17	17	155–157	<1
51	—	16	16	152–154	<1
50	—	15	—	149–151	<1
49	17	—	15	147–148	<1
48	—	14	14	144–146	<1
47	16	13	—	142–143	<1
46	—	—	13	139–141	<1
45	15	12	12	137–138	<1
44	—	—	—	134–136	<1
43	14	11	11	132–133	<1
42	13	—	10	129–131	<1
41	—	—	—	127–128	<1
40	12	10	9	124–126	<1
39	—	—	—	122–123	<1
38	11	9	—	119–121	<1
37	10	—	8	117–118	<1
36	—	—	—	114–116	<1
35	9	8	—	112–113	<1
34	—	—	7	109–111	<1
33	8	7	—	107–108	<1
32	—	—	6	104–106	<1
31	—	—	—	102–103	<1
30	7	6	—	99–101	<1
29	—	—	5	97–98	<1
28	6	5	—	94–96	<1
27	—	—	—	92–93	<1
26	5	—	4	89–91	<1
25	—	4	—	87–88	<1
24	4	—	—	84–86	<1
23	—	3	3	82–83	<1
22	3	—	—	79–81	<1
21	—	—	—	77–78	<1
20	—	—	—	68–76	<1

*Sum of domain standard scores

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DOMAIN and ABC Standard Scores

18:0–21:11

Standard Score	Communication	Daily Living Skills	Socialization	Adaptive Behavior Composite*	Percentile Rank
160	—	—	—	—	>99
159	—	—	—	—	>99
158	—	—	—	—	>99
157	—	—	—	—	>99
156	—	—	—	—	>99
155	—	—	—	—	>99
154	—	—	—	—	>99
153	—	—	—	—	>99
152	—	—	—	—	>99
151	—	—	—	—	>99
150	—	—	—	—	>99
149	—	—	—	—	>99
148	—	—	—	—	>99
147	—	—	—	—	>99
146	—	—	—	—	>99
145	—	—	—	—	>99
144	—	—	—	—	>99
143	—	—	—	—	>99
142	—	—	—	—	>99
141	—	—	—	374–379	>99
140	—	—	—	371–373	>99
139	—	—	—	368–370	>99
138	—	—	—	365–367	99
137	—	—	—	364	99
136	—	—	—	363	99
135	—	—	—	362	99
134	—	—	—	361	99
133	—	—	—	360	99
132	—	—	—	359	98
131	—	56	—	358	98
130	—	—	—	357	98
129	—	—	—	356	97
128	—	—	—	355	97
127	—	55	—	354	96
126	—	—	—	353	96
125	—	—	—	351–352	95
124	—	54	—	350	95
123	—	—	—	348–349	94
122	—	—	—	346–347	93
121	—	53	—	345	92
120	—	—	—	343–344	91
119	—	—	53	341–342	90
118	—	—	—	339–340	88
117	—	—	—	338	87
116	—	52	52	336–337	86
115	—	—	—	334–335	84
114	—	—	51	332–333	82
113	48	51	—	330–331	81
112	—	—	—	329	79
111	—	50	50	327–328	77
110	—	—	—	325–326	75
109	—	49	—	323–324	73
108	—	—	—	321–322	70
107	—	48	49	319–320	68
106	47	—	—	317–318	66
105	—	—	48	315–316	63
104	—	47	—	313–314	61
103	46	—	47	311–312	58
102	—	46	—	309–310	55
101	—	—	46	307–308	53
100	45	45	45	304–306	50
99	—	—	—	302–303	47
98	—	—	—	300–301	45
97	—	44	—	298–299	42
96	44	—	44	295–297	39
95	—	43	—	293–294	37
94	—	—	—	291–292	34
93	43	42	43	288–290	32
92	—	—	—	285–287	30
91	42	41	42	283–284	27

*Sum of domain standard scores

18:0–21:11

Standard Score	Communication	Daily Living Skills	Socialization	Adaptive Behavior Composite*	Percentile Rank
90	—	—	—	280–282	25
89	41	40	41	278–279	23
88	—	—	—	275–277	21
87	40	39	40	272–274	19
86	—	—	—	269–271	18
85	39	38	39	266–268	16
84	—	—	38	263–265	14
83	38	37	—	260–262	13
82	—	—	37	257–259	12
81	37	36	—	254–256	10
80	36	—	36	250–253	9
79	—	35	35	247–249	8
78	35	—	—	243–246	7
77	34	34	34	240–242	6
76	—	33	33	236–239	5
75	33	—	—	232–235	5
74	32	32	32	229–231	4
73	—	—	31	225–228	4
72	31	31	—	221–224	3
71	30	30	30	216–220	3
70	—	—	29	213–215	2
69	29	29	—	211–212	2
68	28	28	28	209–210	2
67	27	—	27	207–208	1
66	26	27	—	204–206	1
65	—	26	26	201–203	1
64	25	—	25	197–200	1
63	24	25	24	194–196	1
62	23	24	—	191–193	1
61	22	23	23	187–190	<1
60	—	—	22	184–186	<1
59	21	22	—	180–183	<1
58	—	21	21	177–179	<1
57	20	20	20	173–176	<1
56	—	19	19	169–172	<1
55	—	—	—	166–168	<1
54	19	18	18	162–165	<1
53	—	—	—	158–161	<1
52	18	17	17	155–157	<1
51	—	16	16	152–154	<1
50	—	15	—	149–151	<1
49	17	—	15	147–148	<1
48	—	14	14	144–146	<1
47	16	13	—	142–143	<1
46	—	—	13	139–141	<1
45	15	12	12	137–138	<1
44	—	—	—	134–136	<1
43	14	11	11	132–133	<1
42	13	—	10	129–131	<1
41	—	—	—	127–128	<1
40	12	10	9	124–126	<1
39	—	—	—	122–123	<1
38	11	9	—	119–121	<1
37	10	—	8	117–118	<1
36	—	—	—	114–116	<1
35	9	8	—	112–113	<1
34	—	—	7	109–111	<1
33	8	7	—	107–108	<1
32	—	—	6	104–106	<1
31	—	—	—	102–103	<1
30	7	6	—	99–101	<1
29	—	—	5	97–98	<1
28	6	5	—	94–96	<1
27	—	—	—	92–93	<1
26	5	—	4	89–91	<1
25	—	4	—	87–88	<1
24	4	—	—	84–86	<1
23	—	3	3	82–83	<1
22	3	—	—	79–81	<1
21	—	—	—	77–78	<1
20	—	—	—	68–76	<1

continued on next page

22:0–49:11					
Standard Score	Communication	Daily Living Skills	Socialization	Adaptive Behavior Composite*	Percentile Rank
160	—	—	—	—	>99
159	—	—	—	—	>99
158	—	—	—	—	>99
157	—	—	—	—	>99
156	—	—	—	—	>99
155	—	—	—	—	>99
154	—	—	—	—	>99
153	—	—	—	—	>99
152	—	—	—	—	>99
151	—	—	—	—	>99
150	—	—	—	—	>99
149	—	—	—	—	>99
148	—	—	—	—	>99
147	—	—	—	—	>99
146	—	—	—	—	>99
145	—	—	—	—	>99
144	—	—	—	—	>99
143	—	—	—	—	>99
142	—	—	—	—	>99
141	—	—	—	—	>99
140	—	—	—	—	>99
139	—	—	—	—	>99
138	—	—	—	—	99
137	—	—	—	—	99
136	—	—	—	—	99
135	—	—	—	—	99
134	—	—	—	—	99
133	—	—	—	—	99
132	—	—	—	—	98
131	—	—	—	—	98
130	—	—	—	—	98
129	—	—	—	—	97
128	—	—	—	—	97
127	—	—	—	—	96
126	—	—	—	—	96
125	—	—	—	—	95
124	—	—	—	—	95
123	—	—	—	—	94
122	—	—	—	—	93
121	—	—	—	327	92
120	—	—	—	—	91
119	—	—	—	—	90
118	—	—	—	326	88
117	—	—	—	325	87
116	—	—	—	—	86
115	—	—	—	324	84
114	—	—	—	—	82
113	—	—	—	323	81
112	—	49	—	322	79
111	—	—	49	321	77
110	—	—	—	320	75
109	—	—	—	—	73
108	—	—	—	319	70
107	48	—	—	318	68
106	—	48	—	—	66
105	—	—	48	317	63
104	47	47	—	316	61
103	—	—	47	313–315	58
102	46	46	—	311–312	55
101	—	—	46	307–310	53
100	45	45	45	306	50
99	—	—	—	304–305	47
98	—	—	—	300–303	45
97	—	—	—	299	42
96	44	44	—	297–298	39
95	—	—	44	294–296	37
94	—	—	—	292–293	34
93	43	43	—	289–291	32
92	—	—	43	286–288	30
91	—	—	—	284–285	27

*Sum of domain standard scores

22:0–49:11					
Standard Score	Communication	Daily Living Skills	Socialization	Adaptive Behavior Composite*	Percentile Rank
90	42	42	—	281–283	25
89	—	—	—	278–280	23
88	—	—	42	275–277	21
87	41	41	—	272–274	19
86	—	—	—	269–271	18
85	—	40	41	266–268	16
84	—	—	—	263–265	14
83	40	39	40	259–262	13
82	—	—	39	256–258	12
81	—	38	—	254–255	10
80	39	—	38	251–253	9
79	—	37	—	247–250	8
78	—	36	37	243–246	7
77	38	—	36	239–242	6
76	37	35	—	235–238	5
75	—	34	35	232–234	5
74	36	—	—	229–231	4
73	—	33	34	226–228	4
72	35	—	—	223–225	3
71	—	32	33	220–222	3
70	—	31	—	217–219	2
69	34	—	32	214–216	2
68	—	30	—	211–213	2
67	33	29	31	207–210	1
66	—	—	—	204–206	1
65	—	28	30	201–203	1
64	32	—	—	197–200	1
63	—	27	—	194–196	1
62	—	—	29	191–193	1
61	—	26	—	187–190	<1
60	31	—	—	184–186	<1
59	—	25	28	180–183	<1
58	—	—	—	177–179	<1
57	—	24	—	173–176	<1
56	—	—	—	169–172	<1
55	—	—	—	166–168	<1
54	30	23	27	162–165	<1
53	—	—	—	158–161	<1
52	—	22	26	155–157	<1
51	29	—	—	152–154	<1
50	—	—	25	149–151	<1
49	—	21	—	147–148	<1
48	28	20	24	144–146	<1
47	—	19	—	142–143	<1
46	—	18	—	139–141	<1
45	—	—	23	137–138	<1
44	27	17	—	134–136	<1
43	—	—	22	132–133	<1
42	—	16	—	129–131	<1
41	—	—	—	127–128	<1
40	26	15	21	124–126	<1
39	—	—	—	122–123	<1
38	—	14	20	119–121	<1
37	—	—	—	117–118	<1
36	25	13	—	114–116	<1
35	—	—	19	112–113	<1
34	—	12	—	109–111	<1
33	24	11	18	107–108	<1
32	—	—	—	104–106	<1
31	—	10	—	102–103	<1
30	—	—	17	99–101	<1
29	23	9	—	97–98	<1
28	—	—	16	94–96	<1
27	—	8	—	92–93	<1
26	—	—	—	89–91	<1
25	22	7	15	87–88	<1
24	—	—	—	84–86	<1
23	—	6	14	82–83	<1
22	—	—	—	79–81	<1
21	3–21	3–5	—	77–78	<1
20	—	—	3–13	62–76	<1

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DOMAIN and ABC Standard Scores

50:0–54:11

Standard Score	Communication	Daily Living Skills	Socialization	Motor Skills	Adaptive Behavior Composite*	Percentile Rank
160	—	—	—	—	—	>99
159	—	—	—	—	—	>99
158	—	—	—	—	—	>99
157	—	—	—	—	—	>99
156	—	—	—	—	—	>99
155	—	—	—	—	—	>99
154	—	—	—	—	—	>99
153	—	—	—	—	—	>99
152	—	—	—	—	—	>99
151	—	—	—	—	—	>99
150	—	—	—	—	—	>99
149	—	—	—	—	—	>99
148	—	—	—	—	—	>99
147	—	—	—	—	—	>99
146	—	—	—	—	—	>99
145	—	—	—	—	—	>99
144	—	—	—	—	—	>99
143	—	—	—	—	—	>99
142	—	—	—	—	—	>99
141	—	—	—	—	—	>99
140	—	—	—	—	—	>99
139	—	—	—	—	—	>99
138	—	—	—	—	—	99
137	—	—	—	—	—	99
136	—	—	—	—	—	99
135	—	—	—	—	—	99
134	—	—	—	—	—	99
133	—	—	—	—	—	99
132	—	—	—	—	—	98
131	—	—	—	—	—	98
130	—	—	—	—	—	98
129	—	—	—	—	—	97
128	—	—	—	—	—	97
127	—	—	—	—	—	96
126	—	—	—	—	—	96
125	—	—	—	—	—	95
124	—	—	—	—	—	95
123	—	—	—	—	—	94
122	—	—	—	—	—	93
121	—	—	—	—	327	92
120	—	—	—	—	—	91
119	—	—	—	—	—	90
118	—	—	—	—	326	88
117	—	—	—	—	325	87
116	—	—	—	—	—	86
115	—	—	—	—	324	84
114	—	—	—	—	—	82
113	—	—	—	—	323	81
112	—	—	—	—	322	79
111	—	—	—	—	321	77
110	—	—	48	—	320	75
109	—	48	—	—	—	73
108	48	—	—	—	319	70
107	—	—	—	—	318	68
106	—	—	—	31	—	66
105	—	—	—	—	317	63
104	47	47	47	—	316	61
103	—	—	—	—	313–315	58
102	46	46	46	—	311–312	55
101	—	—	—	—	307–310	53
100	45	45	45	30	306	50
99	—	—	—	—	304–305	47
98	—	—	—	—	300–303	45
97	—	—	44	—	299	42
96	44	44	—	—	297–298	39
95	—	—	—	—	294–296	37
94	—	—	—	—	292–293	34
93	43	—	43	29	289–291	32
92	—	43	—	—	286–288	30
91	—	—	—	—	284–285	27

*Sum of domain standard scores

50:0–54:11

Standard Score	Communication	Daily Living Skills	Socialization	Motor Skills	Adaptive Behavior Composite*	Percentile Rank
90	42	—	—	—	281–283	25
89	—	42	42	—	278–280	23
88	—	—	41	28	275–277	21
87	41	41	—	—	272–274	19
86	—	—	40	—	269–271	18
85	40	40	—	—	266–268	16
84	—	39	39	27	263–265	14
83	39	—	38	—	259–262	13
82	38	38	—	—	256–258	12
81	—	37	37	26	254–255	10
80	37	—	36	—	251–253	9
79	36	36	—	—	247–250	8
78	—	35	35	—	243–246	7
77	35	—	—	25	239–242	6
76	34	34	34	—	235–238	5
75	—	33	—	—	232–234	5
74	33	—	33	24	229–231	4
73	32	32	—	—	226–228	4
72	—	—	32	23	223–225	3
71	31	31	—	—	220–222	3
70	—	—	—	22	217–219	2
69	30	30	31	—	214–216	2
68	—	—	—	21	211–213	2
67	—	29	—	—	207–210	1
66	29	—	30	20	204–206	1
65	—	—	—	—	201–203	1
64	—	28	—	19	197–200	1
63	28	—	—	—	194–196	1
62	—	—	—	—	191–193	1
61	—	27	29	18	187–190	<1
60	—	—	—	—	184–186	<1
59	27	—	—	—	180–183	<1
58	—	—	—	17	177–179	<1
57	—	26	—	—	173–176	<1
56	—	—	—	—	169–172	<1
55	—	—	—	16	166–168	<1
54	26	—	—	—	162–165	<1
53	—	—	28	—	158–161	<1
52	25	—	—	—	155–157	<1
51	—	—	—	15	152–154	<1
50	—	25	27	—	149–151	<1
49	24	—	—	—	147–148	<1
48	—	24	—	—	144–146	<1
47	—	—	—	14	142–143	<1
46	23	23	—	—	139–141	<1
45	—	—	26	—	137–138	<1
44	—	—	—	13	134–136	<1
43	22	22	—	—	132–133	<1
42	—	—	—	12	129–131	<1
41	—	—	—	—	127–128	<1
40	21	21	25	11	124–126	<1
39	—	—	—	—	122–123	<1
38	—	—	—	—	119–121	<1
37	20	20	—	10	117–118	<1
36	—	—	—	—	114–116	<1
35	—	—	24	—	112–113	<1
34	19	19	—	9	109–111	<1
33	—	—	—	—	107–108	<1
32	—	—	—	—	104–106	<1
31	18	18	—	8	102–103	<1
30	—	—	23	—	99–101	<1
29	—	—	—	—	97–98	<1
28	17	17	—	7	94–96	<1
27	—	—	—	—	92–93	<1
26	—	—	—	—	89–91	<1
25	16	16	22	6	87–88	<1
24	—	—	—	—	84–86	<1
23	—	—	—	—	82–83	<1
22	3–15	3–15	—	2–5	79–81	<1
21	—	—	—	—	77–78	<1
20	—	—	3–21	—	62–76	<1

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55:0–69:11						
Standard Score	Communication	Daily Living Skills	Socialization	Motor Skills	Adaptive Behavior Composite*	Percentile Rank
160	—	—	—	—	—	>99
159	—	—	—	—	—	>99
158	—	—	—	—	—	>99
157	—	—	—	—	—	>99
156	—	—	—	—	—	>99
155	—	—	—	—	—	>99
154	—	—	—	—	—	>99
153	—	—	—	—	—	>99
152	—	—	—	—	—	>99
151	—	—	—	—	—	>99
150	—	—	—	—	—	>99
149	—	—	—	—	—	>99
148	—	—	—	—	—	>99
147	—	—	—	—	—	>99
146	—	—	—	—	—	>99
145	—	—	—	—	—	>99
144	—	—	—	—	—	>99
143	—	—	—	—	—	>99
142	—	—	—	—	—	>99
141	—	—	—	—	—	>99
140	—	—	—	—	—	>99
139	—	—	—	—	—	>99
138	—	—	—	—	—	99
137	—	—	—	—	—	99
136	—	—	—	—	—	99
135	—	—	—	—	—	99
134	—	—	—	—	—	99
133	—	—	—	—	—	99
132	—	—	—	—	—	98
131	—	—	—	—	—	98
130	—	—	—	—	—	98
129	—	—	—	—	—	97
128	—	—	—	—	—	97
127	—	—	—	—	—	96
126	—	—	—	—	—	96
125	—	—	—	—	—	95
124	—	—	—	—	—	95
123	—	—	—	—	—	94
122	—	—	—	—	—	93
121	—	—	—	—	—	92
120	—	—	—	—	—	91
119	—	—	—	—	—	90
118	—	—	—	—	—	88
117	—	—	—	—	—	87
116	—	—	—	35	—	86
115	—	—	—	—	—	84
114	—	—	—	—	—	82
113	—	—	50	—	—	81
112	—	49	—	34	319	79
111	—	—	—	—	—	77
110	—	—	—	—	—	75
109	49	—	49	33	318	73
108	—	—	—	—	—	70
107	—	48	—	—	317	68
106	48	—	48	—	—	66
105	—	—	—	32	315–316	63
104	47	47	47	—	312–314	61
103	—	—	—	—	311	58
102	46	46	46	31	310	55
101	—	—	—	—	309	53
100	45	45	45	30	306–308	50
99	—	—	—	—	303–305	47
98	—	—	—	—	300–302	45
97	—	—	—	—	299	42
96	—	—	—	29	298	39
95	—	—	44	—	297	37
94	44	44	—	—	296	34
93	—	—	—	28	295	32
92	43	—	43	—	293–294	30
91	—	43	—	—	290–292	27

*Sum of domain standard scores

55:0–69:11						
Standard Score	Communication	Daily Living Skills	Socialization	Motor Skills	Adaptive Behavior Composite*	Percentile Rank
90	42	—	—	27	288–289	25
89	—	42	42	—	285–287	23
88	—	—	41	—	282–284	21
87	41	41	—	26	279–281	19
86	—	—	40	—	276–278	18
85	40	40	—	—	273–275	16
84	—	39	39	—	270–272	14
83	39	—	38	25	266–269	13
82	38	38	—	—	263–265	12
81	—	37	37	—	259–262	10
80	37	—	36	—	255–258	9
79	36	36	—	24	251–254	8
78	—	35	35	—	247–250	7
77	35	—	—	—	243–246	6
76	34	34	34	—	238–242	5
75	—	33	—	23	234–237	5
74	33	—	33	—	229–233	4
73	32	32	—	—	225–228	4
72	—	—	32	22	220–224	3
71	31	31	—	—	216–219	3
70	—	—	—	21	214–215	2
69	30	30	31	—	211–213	2
68	—	—	—	—	209–210	2
67	—	29	—	20	206–208	1
66	29	—	30	—	204–205	1
65	—	—	—	—	201–203	1
64	—	28	—	19	197–200	1
63	28	—	—	—	194–196	1
62	—	—	—	—	191–193	1
61	—	27	29	18	187–190	<1
60	—	—	—	—	184–186	<1
59	27	—	—	—	180–183	<1
58	—	—	—	17	177–179	<1
57	—	26	—	—	173–176	<1
56	—	—	—	—	169–172	<1
55	—	—	—	16	166–168	<1
54	26	—	—	—	162–165	<1
53	—	—	28	—	158–161	<1
52	25	—	—	—	155–157	<1
51	—	—	—	15	152–154	<1
50	—	25	27	—	149–151	<1
49	24	—	—	—	147–148	<1
48	—	24	—	—	144–146	<1
47	—	—	—	14	142–143	<1
46	23	23	—	—	139–141	<1
45	—	—	26	—	137–138	<1
44	—	—	—	13	134–136	<1
43	22	22	—	—	132–133	<1
42	—	—	—	12	129–131	<1
41	—	—	—	—	127–128	<1
40	21	21	25	11	124–126	<1
39	—	—	—	—	122–123	<1
38	—	—	—	—	119–121	<1
37	20	20	—	10	117–118	<1
36	—	—	—	—	114–116	<1
35	—	—	24	—	112–113	<1
34	19	19	—	9	109–111	<1
33	—	—	—	—	107–108	<1
32	—	—	—	—	104–106	<1
31	18	18	—	8	102–103	<1
30	—	—	23	—	99–101	<1
29	—	—	—	—	97–98	<1
28	17	17	—	7	94–96	<1
27	—	—	—	—	92–93	<1
26	—	—	—	—	89–91	<1
25	16	16	22	6	87–88	<1
24	—	—	—	—	84–86	<1
23	—	—	—	—	82–83	<1
22	3–15	3–15	—	2–5	79–81	<1
21	—	—	—	—	77–78	<1
20	—	—	3–21	—	64–76	<1

continued on next page

DOMAIN and ABC Standard Scores

70:0–90:11						
Standard Score	Communication	Daily Living Skills	Socialization	Motor Skills	Adaptive Behavior Composite*	Percentile Rank
160	—	—	—	—	—	>99
159	—	—	—	—	—	>99
158	—	—	—	—	—	>99
157	—	—	—	—	—	>99
156	—	—	—	—	—	>99
155	—	—	—	—	—	>99
154	—	—	—	—	—	>99
153	—	—	—	—	—	>99
152	—	—	—	—	—	>99
151	—	—	—	—	—	>99
150	—	—	—	—	—	>99
149	—	—	—	—	—	>99
148	—	—	—	—	—	>99
147	—	—	—	—	—	>99
146	—	—	—	—	—	>99
145	—	—	—	—	—	>99
144	—	—	—	—	—	>99
143	—	—	—	—	—	>99
142	—	—	—	—	—	>99
141	—	—	—	—	—	>99
140	—	—	—	—	—	>99
139	—	—	—	—	—	>99
138	—	—	—	—	—	99
137	—	—	—	—	—	99
136	—	—	—	—	—	99
135	—	—	—	—	—	99
134	—	—	—	—	—	99
133	—	—	—	—	—	99
132	—	—	—	—	—	98
131	—	—	—	—	—	98
130	—	—	—	—	—	98
129	—	—	—	—	—	97
128	—	—	—	—	—	97
127	—	—	—	—	—	96
126	—	—	—	—	—	96
125	—	—	—	—	—	95
124	—	—	—	—	—	95
123	—	—	—	—	—	94
122	—	—	—	—	—	93
121	—	—	—	—	—	92
120	—	—	—	—	—	91
119	—	—	—	—	—	90
118	—	—	—	—	—	88
117	—	—	—	—	—	87
116	—	—	—	35	334	86
115	—	—	—	—	—	84
114	—	—	—	—	—	82
113	—	—	50	—	333	81
112	—	49	—	34	—	79
111	—	—	—	—	—	77
110	—	—	—	—	332	75
109	49	—	49	33	—	73
108	—	—	—	—	329–331	70
107	—	48	—	—	326–328	68
106	48	—	48	—	324–325	66
105	—	—	—	32	321–323	63
104	47	47	47	—	318–320	61
103	—	—	—	—	315–317	58
102	46	46	46	31	312–314	55
101	—	—	—	—	309–311	53
100	45	45	45	30	306–308	50
99	—	—	—	—	303–305	47
98	—	—	—	—	300–302	45
97	—	—	—	—	299	42
96	—	—	—	29	298	39
95	—	—	44	—	295–297	37
94	44	44	—	—	292–294	34
93	—	—	—	28	289–291	32
92	43	—	43	—	285–288	30
91	—	43	—	—	281–284	27

70:0–90:11						
Standard Score	Communication	Daily Living Skills	Socialization	Motor Skills	Adaptive Behavior Composite*	Percentile Rank
90	42	—	—	27	278–280	25
89	—	42	42	—	274–277	23
88	—	—	41	—	270–273	21
87	41	41	—	26	266–269	19
86	—	—	40	—	264–265	18
85	40	40	—	—	262–263	16
84	—	39	39	—	259–261	14
83	39	—	38	25	256–258	13
82	38	38	—	—	253–255	12
81	—	37	37	—	250–252	10
80	37	—	36	—	247–249	9
79	36	36	—	24	244–246	8
78	—	35	35	—	241–243	7
77	35	—	—	—	238–240	6
76	34	34	34	—	235–237	5
75	—	33	—	23	232–234	5
74	33	—	33	—	229–231	4
73	32	32	—	—	226–228	4
72	—	—	32	22	223–225	3
71	31	31	—	—	220–222	3
70	—	—	—	21	217–219	2
69	30	30	31	—	214–216	2
68	—	—	—	—	211–213	2
67	—	29	—	20	207–210	1
66	29	—	30	—	204–206	1
65	—	—	—	—	201–203	1
64	—	28	—	19	197–200	1
63	28	—	—	—	194–196	1
62	—	—	—	—	191–193	1
61	—	27	29	18	187–190	<1
60	—	—	—	—	184–186	<1
59	27	—	—	—	180–183	<1
58	—	—	—	17	177–179	<1
57	—	26	—	—	173–176	<1
56	—	—	—	—	169–172	<1
55	—	—	—	16	166–168	<1
54	26	—	—	—	162–165	<1
53	—	—	28	—	158–161	<1
52	25	—	—	—	155–157	<1
51	—	—	—	15	152–154	<1
50	—	25	27	—	149–151	<1
49	24	—	—	—	147–148	<1
48	—	24	—	—	144–146	<1
47	—	—	—	14	142–143	<1
46	23	23	—	—	139–141	<1
45	—	—	26	—	137–138	<1
44	—	—	—	13	134–136	<1
43	22	22	—	—	132–133	<1
42	—	—	—	12	129–131	<1
41	—	—	—	—	127–128	<1
40	21	21	25	11	124–126	<1
39	—	—	—	—	122–123	<1
38	—	—	—	—	119–121	<1
37	20	20	—	10	117–118	<1
36	—	—	—	—	114–116	<1
35	—	—	24	—	112–113	<1
34	19	19	—	9	109–111	<1
33	—	—	—	—	107–108	<1
32	—	—	—	—	104–106	<1
31	18	18	—	8	102–103	<1
30	—	—	23	—	99–101	<1
29	—	—	—	—	97–98	<1
28	17	17	—	7	94–96	<1
27	—	—	—	—	92–93	<1
26	—	—	—	—	89–91	<1
25	16	16	22	6	87–88	<1
24	—	—	—	—	84–86	<1
23	—	—	—	—	82–83	<1
22	3–15	3–15	—	2–5	79–81	<1
21	—	—	—	—	77–78	<1
20	—	—	3–21	—	64–76	<1

*Sum of domain standard scores

Table B.3 *v*-Scale Scores Corresponding to Maladaptive Behavior Subscale and Index Raw Scores

v-Scale Score	Ages 3–5			Ages 6–11			Ages 12–18			Ages 19–39			Ages 40–90			*v*-Scale Score
	Inter-nalizing	Exter-nalizing	Maladaptive Behavior Index	Inter-nalizing	Exter-nalizing	Maladaptive Behavior Index	Inter-nalizing	Exter-nalizing	Maladaptive Behavior Index	Inter-nalizing	Exter-nalizing	Maladaptive Behavior Index	Inter-nalizing	Exter-nalizing	Maladaptive Behavior Index	
24	15–22	17–20	41–72	16–22	17–20	42–72	16–22	18–20	38–72	16–22	16–20	31–72	15–22	8–20	28–72	24
23	13–14	16	36–40	14–15	16	37–41	14–15	17	35–37	13–15	14–15	29–30	13–14	7	24–27	23
22	11–12	15	31–35	12–13	14–15	31–36	12–13	14–16	31–34	10–12	12–13	26–28	11–12	—	20–23	22
21	9–10	13–14	26–30	9–11	12–13	26–30	9–11	12–13	26–30	8–9	10–11	22–25	8–10	6	15–19	21
20	7–8	11–12	22–25	7–8	10–11	21–25	7–8	9–11	21–25	6–7	7–9	18–21	6–7	5	12–14	20
19	5–6	9–10	17–21	5–6	8–9	16–20	5–6	7–8	15–20	4–5	5–6	13–17	4–5	3–4	9–11	19
18	4	7–8	14–16	4	6–7	12–15	3–4	5–6	11–14	3	3–4	9–12	2–3	2	6–8	18
17	3	5–6	11–13	2–3	4–5	9–11	2	3–4	7–10	2	2	5–8	1	1	5	17
16	2	4	8–10	—	3	6–8	1	2	4–6	1	1	3–4	—	—	3–4	16
15	1	3	6–7	1	2	4–5	—	1	3	—	—	2	—	—	2	15
14	—	2	4–5	—	1	2–3	—	—	1–2	—	0	1	0	0	1	14
13	—	1	3	0	—	1	0	0	—	0	—	—	—	—	—	13
12	0	—	1–2	—	0	0	—	—	0	—	—	0	—	—	0	12
11	—	0	—	—	—	—	—	—	—	—	—	—	—	—	—	11
10	—	—	0	—	—	—	—	—	—	—	—	—	—	—	—	10
9	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9
8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	8
7	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7
6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6
5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5
4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4
3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3
2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2
1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1

Derived Norms

Appendix

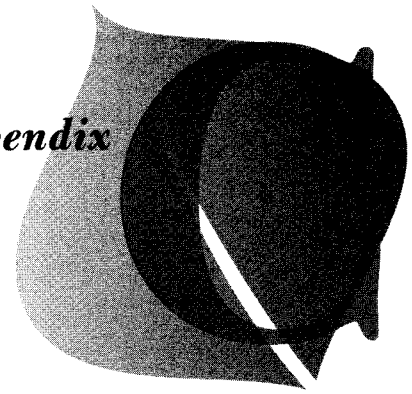

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Table C.1 Confidence Intervals for Subdomain *v*-Scale Scores

Age	Confidence Level (%)	Communication			Daily Living Skills			Socialization			Motor Skills[a]		Age
		Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
0	95	±3	±2	—	±2	—	—	±2	±2	—	±1	±2	0
	90	±2	±1	—	±2	—	—	±2	±2	—	±1	±2	
	85	±2	±1	—	±2	—	—	±1	±2	—	±1	±1	
1	95	±2	±1	—	±2	±2	±3	±2	±2	±3	±1	±2	1
	90	±2	±1	—	±2	±2	±3	±2	±2	±3	±1	±2	
	85	±1	±1	—	±1	±2	±2	±1	±2	±2	±1	±2	
2	95	±2	±1	—	±2	±3	±3	±2	±2	±2	±2	±2	2
	90	±2	±1	—	±2	±2	±2	±2	±2	±2	±2	±2	
	85	±2	±1	—	±2	±2	±2	±1	±2	±1	±1	±2	
3	95	±3	±1	±3	±2	±3	±3	±2	±2	±2	±2	±2	3
	90	±2	±1	±3	±2	±3	±2	±2	±2	±2	±2	±2	
	85	±2	±1	±2	±2	±2	±2	±2	±2	±1	±2	±2	
4	95	±3	±2	±2	±3	±3	±2	±2	±3	±2	±2	±2	4
	90	±3	±1	±2	±3	±2	±2	±2	±2	±2	±2	±2	
	85	±2	±1	±2	±2	±2	±2	±2	±2	±2	±2	±2	
5	95	±3	±2	±2	±3	±2	±2	±2	±3	±2	±3	±2	5
	90	±2	±1	±2	±2	±2	±2	±2	±2	±2	±2	±2	
	85	±2	±1	±1	±2	±2	±2	±2	±2	±1	±2	±2	
6	95	±3	±2	±2	±3	±2	±2	±2	±3	±2	±2	±2	6
	90	±2	±2	±2	±2	±2	±2	±2	±2	±1	±2	±2	
	85	±2	±2	±1	±2	±2	±1	±1	±2	±1	±2	±2	
7	95	±3	±2	±2	±2	±2	±2	±2	±3	±2	—	—	7
	90	±2	±2	±2	±2	±2	±2	±2	±2	±2	—	—	
	85	±2	±1	±2	±2	±2	±1	±2	±2	±1	—	—	
8	95	±3	±2	±2	±3	±2	±2	±2	±3	±2	—	—	8
	90	±2	±2	±2	±2	±2	±2	±2	±2	±2	—	—	
	85	±2	±2	±2	±2	±2	±2	±2	±2	±1	—	—	
9	95	±2	±2	±2	±3	±2	±2	±2	±3	±2	—	—	9
	90	±2	±2	±2	±3	±2	±2	±2	±3	±2	—	—	
	85	±2	±2	±2	±2	±2	±2	±1	±2	±2	—	—	
10	95	±3	±2	±2	±3	±2	±2	±2	±3	±2	—	—	10
	90	±2	±2	±2	±3	±2	±2	±2	±2	±2	—	—	
	85	±2	±2	±2	±2	±2	±2	±2	±2	±2	—	—	
11	95	±3	±2	±2	±3	±2	±3	±2	±3	±2	—	—	11
	90	±2	±2	±2	±3	±2	±2	±2	±3	±2	—	—	
	85	±2	±1	±2	±2	±2	±2	±2	±2	±2	—	—	
12–13	95	±2	±2	±2	±3	±2	±2	±2	±3	±3	—	—	12–13
	90	±2	±2	±2	±3	±2	±2	±2	±3	±2	—	—	
	85	±2	±1	±2	±2	±2	±2	±2	±2	±2	—	—	
14–15	95	±2	±2	±2	±3	±3	±3	±3	±3	±3	—	—	14–15
	90	±2	±2	±2	±3	±2	±2	±2	±2	±2	—	—	
	85	±2	±2	±2	±2	±2	±2	±2	±2	±2	—	—	
16–18	95	±1	±2	±2	±3	±3	±3	±3	±3	±3	—	—	16–18
	90	±1	±2	±2	±3	±2	±2	±2	±2	±2	—	—	
	85	±1	±1	±2	±2	±2	±2	±2	±2	±2	—	—	
19–21	95	±1	±2	±2	±3	±2	±3	±2	±3	±2	—	—	19–21
	90	±1	±2	±2	±2	±2	±3	±2	±2	±2	—	—	
	85	±1	±1	±2	±2	±2	±2	±2	±2	±2	—	—	
22–31	95	±2	±1	±2	±2	±2	±2	±2	±2	±2	—	—	22–31
	90	±1	±1	±2	±2	±1	±2	±2	±2	±2	—	—	
	85	±1	±1	±2	±2	±1	±1	±2	±1	±1	—	—	
32–51	95	±3	±2	±2	±2	±2	±2	±2	±3	±2	—	—	32–51
	90	±3	±2	±2	±2	±2	±2	±1	±2	±2	—	—	
	85	±2	±1	±2	±2	±2	±1	±1	±2	±1	—	—	
52–71	95	±4	±2	±2	±3	±2	±2	±2	±3	±2	±2b	±3b	52–71
	90	±3	±1	±2	±2	±2	±2	±2	±2	±1	±2b	±2b	
	85	±3	±1	±2	±2	±2	±2	±2	±2	±1	±2b	±2b	
72–90	95	±1	±1	±2	±1	±2	±1	±2	±2	±2	±2	±3	72–90
	90	±1	±1	±2	±1	±2	±1	±2	±1	±2	±1	±3	
	85	±1	±1	±2	±1	±2	±1	±2	±1	±2	±1	±2	

Note: Values for the 95, 90, and 85 percent confidence levels were obtained by multiplying the *z* score associated with a particular level of confidence by the standard error of measurement.

[a] Ages 0–6 and 50–90

[b] Includes ages 50–51

Table C.2 Confidence Intervals for Domain and Adaptive Behavior Composite Standard Scores

Age	Confidence Level (%)	Communication	Daily Living Skills	Socialization	Motor Skills[a]	Adaptive Behavior Composite	Age
0	95	±10	±13	±9	±8	±6	0
	90	±8	±11	±7	±7	±5	
	85	±7	±10	±6	±6	±4	
1	95	±7	±10	±8	±8	±5	1
	90	±6	±9	±7	±7	±4	
	85	±5	±7	±6	±6	±4	
2	95	±7	±8	±7	±9	±4	2
	90	±6	±7	±6	±7	±4	
	85	±5	±6	±5	±7	±3	
3	95	±8	±9	±7	±10	±5	3
	90	±7	±8	±6	±8	±5	
	85	±6	±7	±5	±7	±4	
4	95	±8	±9	±8	±10	±5	4
	90	±7	±8	±7	±8	±4	
	85	±6	±7	±6	±7	±4	
5	95	±8	±8	±7	±12	±5	5
	90	±6	±7	±6	±10	±4	
	85	±6	±6	±5	±9	±4	
6	95	±8	±8	±7	±10	±5	6
	90	±7	±7	±6	±9	±4	
	85	±6	±6	±5	±7	±4	
7	95	±8	±8	±8	—	±5	7
	90	±7	±7	±7	—	±4	
	85	±6	±6	±6	—	±4	
8	95	±8	±8	±8	—	±5	8
	90	±7	±7	±6	—	±4	
	85	±6	±6	±6	—	±4	
9	95	±8	±9	±9	—	±5	9
	90	±7	±8	±7	—	±4	
	85	±6	±7	±6	—	±4	
10	95	±9	±9	±8	—	±6	10
	90	±7	±8	±7	—	±5	
	85	±6	±7	±6	—	±4	
11	95	±9	±10	±10	—	±7	11
	90	±8	±8	±8	—	±6	
	85	±7	±7	±7	—	±5	
12–13	95	±9	±10	±9	—	±6	12–13
	90	±7	±8	±8	—	±5	
	85	±6	±7	±7	—	±4	
14–15	95	±10	±11	±11	—	±7	14–15
	90	±9	±9	±9	—	±6	
	85	±8	±8	±8	—	±5	
16–18	95	±8	±11	±9	—	±7	16–18
	90	±7	±9	±8	—	±6	
	85	±6	±8	±7	—	±5	
19–21	95	±7	±10	±9	—	±6	19–21
	90	±6	±8	±7	—	±5	
	85	±5	±7	±6	—	±4	
22–31	95	±9	±9	±9	—	±8	22–31
	90	±7	±8	±7	—	±7	
	85	±6	±7	±6	—	±6	
32–51	95	±12	±9	±9	—	±8	32–51
	90	±10	±8	±8	—	±7	
	85	±9	±7	±7	—	±6	
52–71	95	±10	±11	±9	±12[b]	±8	52–71
	90	±9	±9	±8	±10[b]	±7	
	85	±8	±8	±7	±9[b]	±6	
72–90	95	±7	±7	±8	±11	±5	72–90
	90	±6	±6	±7	±9	±4	
	85	±5	±5	±6	±8	±4	

Note: Values for the 95, 90, and 85 percent confidence levels were obtained by multiplying the *z* score associated with a particular level of confidence by the standard error of measurement.

[a] Ages 0–6 and 50–90

[b] Includes ages 50–51

Table C.3 Percentile Ranks and Stanines Corresponding to Domain Standard Scores and the Adaptive Behavior Composite

Standard Score	Percentile Rank	Stanine	Standard Score
Above 148	>99.9	9	Above 148
148	99.9		148
147	99.9		147
146	99.9		146
145	99.9		145
144	99.8		144
143	99.8		143
142	99.7		142
141	99.7		141
140	99.6		140
139	99.5		139
138	99		138
137	99		137
136	99		136
135	99		135
134	99		134
133	99		133
132	98		132
131	98		131
130	98		130
129	97		129
128	97		128
127	96		127
126	96		126
125	95	8	125
124	95		124
123	94		123
122	93		122
121	92		121
120	91		120
119	90		119
118	88		118
117	87	7	117
116	86		116
115	84		115
114	82		114
113	81		113
112	79		112
111	77		111
110	75	6	110
109	73		109
108	70		108
107	68		107
106	66		106
105	63		105
104	61		104
103	58	5	103
102	55		102
101	53		101
100	50		100
99	47		99
98	45		98
97	42		97
96	39		96
95	37	4	95
94	34		94
93	32		93
92	30		92
91	27		91
90	25		90
89	23		89
88	21	3	88
87	19		87
86	18		86
85	16		85
84	14		84
83	13		83
82	12		82
81	10		81
80	9	2	80
79	8		79
78	7		78
77	6		77
76	5		76
75	5		75
74	4		74
73	4		73
72	3	1	72
71	3		71
70	2		70
69	2		69
68	2		68
67	1		67
66	1		66
65	1		65
64	1		64
63	1		63
62	1		62
61	0.5		61
60	0.4		60
59	0.3		59
58	0.3		58
57	0.2		57
56	0.2		56
55	0.1		55
54	0.1		54
53	0.1		53
52	0.1		52
Below 52	<0.1		Below 52

Table C.4 Adaptive Levels Corresponding to Subdomain *v*-Scale Scores, and Domain and Adaptive Behavior Composite Standard Scores

Adaptive Level	*v*-Scale	Standard Score
Low	1 to 9	20 to 70[a]
Moderately Low	10 to 12	71 to 85
Adequate	13 to 17	86 to 114
Moderately High	18 to 20	115 to 129
High	21 to 24	130 to 160

[a] The following classifications may be used for standard scores of 20 to 70:

Classification	Standard Score
mild deficit	50-55 to approximately 70
moderate deficit	35-40 to 50-55
severe deficit	20-25 to 35-40
profound deficit	Below 20 or 25

Adapted from Grossman, H.H. (Ed.). *Classification in Mental Retardation* (1983 revision). Washington, DC: American Association of Mental Deficiency, 1983, p. 13.

Table C.5 Age Equivalents Corresponding to Subdomain Raw Scores

Age Equivalent	Communication			Daily Living Skills			Socialization			Motor Skills		Age Equivalent
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
22+	—	108	50	82	48	86–88	76	62	60	80	70–72	22+
21	—	—	—	—	—	85	—	—	—	—	—	21
20	—	—	—	81	47	84	—	—	59	—	—	20
19	—	—	—	—	—	81–83	75	—	—	—	—	19
18:9	—	—	—	—	—	80	—	—	—	—	—	18:9
18:6	—	—	—	80	—	79	—	—	—	—	—	18:6
18:3	—	—	—	—	—	78	—	—	—	—	—	18:3
18:0	40	—	—	—	—	—	—	—	—	—	—	18:0
17:9	—	—	49	—	—	77	—	—	58	—	—	17:9
17:6	—	—	—	—	46	—	—	—	—	—	—	17:6
17:3	—	—	—	79	—	76	74	—	—	—	—	17:3
17:0	—	—	—	—	—	75	—	—	—	—	—	17:0
16:9	—	—	—	—	—	74	—	—	—	—	—	16:9
16:6	—	—	—	—	—	73	—	—	—	—	—	16:6
16:3	—	—	—	—	—	72	—	—	57	—	—	16:3
16:0	—	—	—	78	—	—	73	61	—	—	—	16:0
15:9	—	—	—	—	—	71	—	—	—	—	—	15:9
15:6	—	—	—	—	—	70	—	—	—	—	—	15:6
15:3	—	—	48	—	45	—	—	—	—	—	—	15:3
15:0	—	—	—	77	44	69	—	60	56	—	—	15:0
14:9	—	—	—	—	—	—	72	—	—	—	—	14:9
14:6	—	—	—	—	—	—	—	—	—	—	—	14:6
14:3	—	—	—	—	—	—	—	—	—	—	—	14:3
14:0	—	—	47	76	43	68	—	59	55	—	—	14:0
13:9	—	—	—	—	42	67	—	—	—	—	—	13:9
13:6	—	—	—	—	—	—	—	—	—	—	—	13:6
13:3	—	—	—	—	41	—	—	—	—	—	—	13:3
13:0	—	—	46	—	40	66	—	58	—	—	—	13:0
12:9	—	—	—	—	—	65	71	—	54	—	—	12:9
12:6	—	—	—	75	—	—	—	—	53	—	—	12:6
12:3	—	107	—	—	—	—	—	—	—	—	—	12:3
12:0	—	—	45	—	39	64	—	57	52	—	—	12:0
11:9	—	—	44	—	38	63	—	—	51	—	—	11:9
11:6	—	—	—	74	37	—	70	—	50	—	—	11:6
11:3	—	—	43	73	36	—	69	56	49	—	—	11:3
11:0	39	—	—	—	35	—	—	—	—	—	—	11:0
10:10	—	—	42	—	—	62	—	—	48	—	—	10:10
10:8	—	—	41	—	34	—	—	—	—	—	—	10:8
10:6	—	106	—	72	33	61	—	55	47	—	—	10:6
10:4	—	—	—	—	32	—	—	—	—	—	—	10:4
10:2	—	—	—	—	—	—	—	—	—	—	—	10:2
10:0	—	—	40	—	31	—	68	—	46	—	—	10:0

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Table C.5 *continued*

Age Equivalent	Communication			Daily Living Skills			Socialization			Motor Skills		Age Equivalent
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
9:10	—	—	39	—	30	60	—	—	45	—	—	9:10
9:8	—	—	—	—	29	59	—	—	—	—	—	9:8
9:6	38	105	38	—	28	58	67	54	44	—	—	9:6
9:4	—	—	—	—	27	—	—	—	—	—	—	9:4
9:2	—	—	37	—	—	57	—	—	—	—	—	9:2
9:0	—	—	36	—	—	56	—	53	—	—	—	9:0
8:11	—	—	—	—	—	55	—	—	—	—	—	8:11
8:10	—	—	35	71	—	—	—	—	—	—	—	8:10
8:9	—	—	—	—	—	—	—	—	—	—	—	8:9
8:8	—	—	—	—	—	—	—	—	—	—	—	8:8
8:7	—	104	—	—	26	54	—	—	43	—	—	8:7
8:6	37	—	34	70	25	53	66	—	41–42	—	—	8:6
8:5	—	—	—	—	24	52	65	—	40	—	—	8:5
8:4	—	103	—	—	—	51	—	52	—	—	—	8:4
8:3	—	—	—	—	—	—	—	51	—	—	—	8:3
8:2	—	—	—	—	—	—	—	—	—	—	—	8:2
8:1	—	—	33	—	—	—	—	—	—	—	—	8:1
8:0	—	102	32	—	23	50	—	—	—	—	—	8:0
7:11	—	—	—	—	—	49	—	—	—	—	—	7:11
7:10	—	—	31	—	—	—	64	—	—	—	—	7:10
7:9	—	—	30	—	—	—	—	—	—	—	—	7:9
7:8	—	—	—	—	—	—	—	—	—	—	—	7:8
7:7	—	101	—	—	22	48	—	50	39	—	—	7:7
7:6	36	100	29	69	21	46–47	63	49	38	—	—	7:6
7:5	—	—	—	68	20	45	62	—	37	—	—	7:5
7:4	—	—	—	—	—	—	—	—	—	—	—	7:4
7:3	—	—	—	—	—	—	—	—	—	—	—	7:3
7:2	—	—	—	—	—	—	—	—	—	—	—	7:2
7:1	—	—	28	—	—	—	—	—	36	—	—	7:1
7:0	—	99	27	—	19	44	—	48	—	—	—	7:0
6:11	—	—	26	—	—	43	—	—	—	—	—	6:11
6:10	—	—	25	—	—	42	—	—	—	79	69	6:10
6:9	—	—	24	—	—	41	—	—	—	—	—	6:9
6:8	—	—	—	—	—	—	61	—	—	—	—	6:8
6:7	—	98	—	67	—	40	60	47	35	—	—	6:7
6:6	35	97	23	66	18	37–39	59	46	34	—	68	6:6
6:5	—	—	22	—	17	36	58	—	33	—	—	6:5
6:4	—	96	—	—	—	—	—	—	—	—	—	6:4
6:3	—	—	—	—	—	—	—	—	—	—	—	6:3
6:2	—	—	—	—	—	35	—	—	—	—	—	6:2
6:1	—	—	21	65	—	33–34	—	—	—	—	67	6:1
6:0	—	—	20	—	—	32	—	—	—	—	66	6:0
5:11	—	95	19	64	16	31	57	45	32	78	—	5:11
5:10	—	94	18	63	—	29–30	—	44	—	—	65	5:10
5:9	—	—	—	—	—	28	—	—	—	—	64	5:9
5:8	—	—	17	—	—	—	—	—	—	—	63	5:8
5:7	—	93	—	—	—	—	56	43	31	—	62	5:7
5:6	34	92	16	—	15	27	55	—	29–30	—	61	5:6
5:5	—	—	15	—	14	25–26	54	—	28	77	60	5:5
5:4	—	91	—	—	—	24	—	42	—	—	—	5:4
5:3	—	—	—	—	—	—	—	41	—	—	59	5:3
5:2	—	—	14	62	—	—	—	—	—	—	58	5:2
5:1	—	—	13	—	—	—	—	—	—	—	57	5:1
5:0	—	90	—	61	—	—	—	—	—	—	—	5:0
4:11	33	89	12	60	13	23	53	40	—	76	56	4:11
4:10	—	88	11	59	—	22	—	—	—	—	54–55	4:10
4:9	—	—	—	—	—	—	—	—	—	—	53	4:9

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Table C.5 *continued*

Age Equivalent	Communication			Daily Living Skills			Socialization			Motor Skills		Age Equivalent
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine	
4:8	—	—	—	—	—	21	52	39	27	—	—	4:8
4:7	32	87	—	58	12	—	51	38	25–26	75	52	4:7
4:6	—	86	10	57	11	20	50	—	24	—	50–51	4:6
4:5	—	85	9	56	—	19	—	37	—	74	49	4:5
4:4	—	84	—	—	—	—	—	—	—	—	—	4:4
4:3	—	—	8	—	—	—	—	—	—	—	48	4:3
4:2	—	—	7	55	—	18	—	—	—	—	46–47	4:2
4:1	—	—	—	54	—	—	—	—	—	—	45	4:1
4:0	—	83	—	53	—	—	—	36	—	—	—	4:0
3:11	31	80–82	—	52	10	17	49	35	23	73	44	3:11
3:10	—	79	6	51	—	16	48	34	22	72	42–43	3:10
3:9	—	—	—	50	—	—	—	—	—	71	41	3:9
3:8	—	—	—	—	—	—	47	—	—	—	—	3:8
3:7	30	78	—	49	—	15	46	33	21	—	40	3:7
3:6	—	75–77	—	47–48	—	14	—	32	—	70	39	3:6
3:5	29	74	5	46	9	13	45	31	20	69	38	3:5
3:4	—	—	—	—	—	—	—	—	19	—	—	3:4
3:3	—	73	—	45	—	—	—	—	—	—	37	3:3
3:2	—	69–72	—	43–44	—	12	44	30	—	68	36	3:2
3:1	—	68	4	42	—	11	—	29	—	67	35	3:1
3:0	—	—	—	41	—	—	43	—	18	66	34	3:0
2:11	28	67	—	40	8	—	41–42	28	17	65	33	2:11
2:10	27	61–66	—	38–39	—	10	40	27	16	64	32	2:10
2:9	—	60	3	36–37	—	—	—	26	—	63	31	2:9
2:8	—	—	—	35	7	—	—	—	—	—	30	2:8
2:7	—	59	—	34	—	—	39	25	15	62	—	2:7
2:6	26	54–58	—	32–33	6	9	38	24	14	60–61	29	2:6
2:5	25	53	2	31	—	8	37	23	13	59	28	2:5
2:4	—	52	—	30	—	—	36	—	—	58	27	2:4
2:3	—	46–51	—	27–29	—	7	35	—	12	56–57	26	2:3
2:2	24	45	—	26	5	6	34	22	11	55	25	2:2
2:1	—	39–44	1	25	—	—	—	21	10	54	24	2:1
2:0	—	38	—	23–24	—	—	33	—	—	52–53	23	2:0
1:11	23	34–37	—	22	—	—	—	20	9	51	22	1:11
1:10	22	33	0	21	4	5	32	19	8	50	21	1:10
1:9	21	32	—	20	—	—	31	—	7	48–49	—	1:9
1:8	—	30–31	—	18–19	—	—	—	—	—	47	20	1:8
1:7	20	29	—	17	—	—	30	18	—	46	19	1:7
1:6	18–19	27–28	—	16	3	4	29	17	6	44–45	18	1:6
1:5	17	26	—	15	—	—	28	16	—	43	17	1:5
1:4	16	23–25	—	14	—	—	27	15	—	40–42	—	1:4
1:3	14–15	21–22	—	13	—	—	26	14	—	36–39	16	1:3
1:2	13	20	—	12	2	—	—	13	—	32–35	15	1:2
1:1	12	19	—	11	—	—	25	12	5	27–31	—	1:1
1:0	11	18	—	10	—	—	—	11	—	26	—	1:0
0:11	10	—	—	—	—	3	24	10	—	23–25	14	0:11
0:10	9	17	—	9	1	—	—	9	4	21–22	13	0:10
0:9	8	14–16	—	8	—	—	23	8	—	17–20	12	0:9
0:8	7	12–13	—	7	—	—	22	7	—	13–16	11	0:8
0:7	—	11	—	6	0	2	20–21	6	3	9–12	9–10	0:7
0:6	6	10	—	5	—	—	17–19	5	—	7–8	7–8	0:6
0:5	—	9	—	4	—	—	15–16	—	—	6	5–6	0:5
0:4	—	8	—	3	—	—	14	4	2	5	2–4	0:4
0:3	5	7	—	—	—	1	12–13	—	—	4	1	0:3
0:2	—	6	—	—	—	—	11	3	—	3	—	0:2
0:1	4	5	—	2	—	—	7–10	—	1	2	0	0:1
Below 0:1	0–3	0–4	—	0–1	—	0	0–6	0–2	0	0–1	—	Below 0:1

Table C.6 Confidence Intervals for Maladaptive Behavior Subscales and Index

Age	Confidence Interval (%)	Internalizing	Externalizing	Maladaptive Behavior Index
3–5	95	±3	±2	±2
	90	±2	±2	±2
	85	±2	±2	±1
6–11	95	±2	±2	±2
	90	±2	±2	±1
	85	±2	±1	±1
12–18	95	±2	±2	±2
	90	±2	±1	±1
	85	±2	±1	±1
19–39	95	±2	±1	±2
	90	±2	±1	±1
	85	±2	±1	±1
40–90	95	±2	±2	±2
	90	±1	±2	±2
	85	±1	±2	±2

Note: Values for the 95, 90, and 85 percent confidence levels were obtained by multiplying the *z* score associated with a particular level of confidence by the standard error of measurement.

Table C.7 Levels Corresponding to Maladaptive *v*-Scale Scores

Level	*v*-Scale Score
Clinically Significant	21 to 24
Elevated	18 to 20
Average	1 to 17

Difference Values

Appendix D

Table D.1 Pairwise Comparisions: Values Needed for Statistical Significance when Comparing Each Domain Standard Score with Every Other Domain Standard Score 258

Table D.2 Pairwise Comparisons: Values Indicating Infrequently Occurring Differences when Comparing Each Domain Standard Score with Every Other Domain Standard Score 259

Table D.3 Pairwise Comparisons: Values Needed for Statistical Significance at .05 and .01 Levels when Comparing Each Subdomain *v*-Scale Score with the *v*-Scale Score of Every Other Subdomain 260

Table D.4 Pairwise Comparisons: Values Indicating Infrequently Occurring Differences when Comparing Each Subdomain *v*-Scale Score with the *v*-Scale Score of Every Other Subdomain 270

Table D.5 Pairwise Comparisons: Values Needed for Statistical Significance at .05 and .01 Levels, Using the Bonferroni Correction, when Comparing Each Subdomain *v*-Scale Score with the *v*-Scale Score of Every Other Subdomain 290

Table D.1 Pairwise Comparisions: Values Needed for Statistical Significance when Comparing Each Domain Standard Score with Every Other Domain Standard Score

Age	Significance Level	Communication/ Daily Living Skills	Communication/ Socialization	Communication/ Motor Skills[a]	Daily Living Skills/ Socialization	Daily Living Skills/ Motor Skills[a]	Socialization/ Motor Skills[a]	Significance Level	Age
		Standard Score Difference Required for Significance							
0	.05	17	14	13	17	16	12	.05	0
	.01	23	18	17	22	21	16	.01	
1	.05	13	11	11	14	13	12	.05	1
	.01	17	14	14	18	17	15	.01	
2	.05	11	10	12	11	13	12	.05	2
	.01	15	13	15	14	16	15	.01	
3	.05	13	11	14	12	14	12	.05	3
	.01	17	15	18	15	18	16	.01	
4	.05	13	12	14	13	14	13	.05	4
	.01	17	16	18	16	19	17	.01	
5	.05	12	11	15	12	15	15	.05	5
	.01	15	14	20	15	20	19	.01	
6	.05	12	11	14	11	14	13	.05	6
	.01	16	14	18	14	18	17	.01	
7	.05	12	12	—	12	—	—	.05	7
	.01	16	16	—	16	—	—	.01	
8	.05	12	12	—	12	—	—	.05	8
	.01	16	15	—	15	—	—	.01	
9	.05	13	12	—	13	—	—	.05	9
	.01	16	16	—	17	—	—	.01	
10	.05	13	13	—	13	—	—	.05	10
	.01	17	17	—	17	—	—	.01	
11	.05	14	14	—	14	—	—	.05	11
	.01	19	18	—	19	—	—	.01	
12–13	.05	14	13	—	14	—	—	.05	12–13
	.01	18	18	—	18	—	—	.01	
14–15	.05	16	15	—	16	—	—	.05	14–15
	.01	21	20	—	21	—	—	.01	
16–18	.05	14	13	—	15	—	—	.05	16–18
	.01	18	17	—	19	—	—	.01	
19–21	.05	13	12	—	14	—	—	.05	19–21
	.01	17	16	—	18	—	—	.01	
22–31	.05	13	13	—	13	—	—	.05	22–31
	.01	17	16	—	17	—	—	.01	
32–51	.05	16	16	—	13	—	—	.05	32–51
	.01	20	20	—	17	—	—	.01	
52–71	.05	15	15	17	15	17	16	.05	52–71
	.01	20	19	22	19	22	21	.01	
72–90	.05	10	11	14	11	13	14	.05	72–90
	.01	13	15	18	15	18	19	.01	

Note: Values were obtained by using the Difference Score formula, Sattler (2001, p. 301), and were rounded to integers.

[a] Administration of the Motor Skills Domain is optional for individuals ages 7–49. If the domain was administered for an age 7–49 and an estimated standard score was obtained, do not use Motor Skills in the comparisons.

[b] Includes ages 50–51

Table D.2 Pairwise Comparisons: Values Indicating Infrequently Occurring Differences when Comparing Each Domain Standard Score with Every Other Domain Standard Score

Age	Occurrence in Sample (Extreme %)	Communication/ Daily Living Skills	Communication/ Socialization	Communication/ Motor Skills[a]	Daily Living Skills/ Socialization	Daily Living Skills/Motor Skills[a]	Socialization/ Motor Skills[a]	Occurrence in Sample (Extreme %)	Age
		Standard Score Difference							
0	16 (1 *SD*)	16–20	13–17	16–20	15–17	15–18	13–17	16 (1 *SD*)	0
	10	21–25	18–22	21–26	18–23	19–24	18–21	10	
	5	26–36	23–31	27–40	24–34	25–37	22–30	5	
	1	37+	32+	41+	35+	38+	31+	1	
1	16 (1 *SD*)	12–14	11–12	13–16	12–14	14–17	14–15	16 (1 *SD*)	1
	10	15–21	13–16	17–21	15–18	18–24	16–20	10	
	5	22–28	17–26	22–31	19–29	25–30	21–26	5	
	1	29+	27+	32+	30+	31+	27+	1	
2	16 (1 *SD*)	12–14	9–12	11–14	11–13	12–14	11–12	16 (1 *SD*)	2
	10	15–17	13–15	15–21	14–15	15–19	13–19	10	
	5	18–25	16–18	22–29	16–23	20–32	20–25	5	
	1	26+	19+	30+	24+	33+	26+	1	
3–6	16 (1 *SD*)	12–15	12–15	12–15	11–13	13–16	12–16	16 (1 *SD*)	3–6
	10	16–19	16–18	16–22	14–16	17–21	17–21	10	
	5	20–25	19–26	23–31	17–26	22–30	22–33	5	
	1	26+	27+	32+	27+	31+	34+	1	
7–13	16 (1 *SD*)	11–14	11–14	—	12–14	—	—	16 (1 *SD*)	7–13
	10	15–18	15–19	—	15–18	—	—	10	
	5	19–30	20–30	—	19–27	—	—	5	
	1	31+	31+	—	28+	—	—	1	
14–21	16 (1 *SD*)	13–16	13–16	—	14–16	—	—	16 (1 *SD*)	14–21
	10	17–21	17–22	—	17–22	—	—	10	
	5	22–31	23–28	—	23–35	—	—	5	
	1	32+	29+	—	36+	—	—	1	
22–49	16 (1 *SD*)	8–11	7–11	—	10–14	—	—	16 (1 *SD*)	22–49
	10	12–16	12–17	—	15–17	—	—	10	
	5	17–28	18–26	—	18–24	—	—	5	
	1	29+	27+	—	25+	—	—	1	
50–90	16 (1 *SD*)	10–15	10–13	10–13	7–12	14–17	11–15	16 (1 *SD*)	50–90
	10	16–17	14–18	14–22	13–15	18–21	16–22	10	
	5	18–27	19–24	23–33	16–21	22–28	23–25	5	
	1	28+	25+	34+	22+	29+	26+	1	

Note: Values were obtained by computing differences between every pair of standard scores and determining frequency distributions and cumulative percentages of the differences.

[a] Administration of the Motor Skills Domain is optional for individuals aged 7–49. If the domain was administered for an individual aged 7–49 and an estimated standard score was obtained, do not use Motor Skills in the comparisons.

Table D.3 Pairwise Comparisons: Values Needed for Statistical Significance at .05 and .01 Levels when Comparing Each Subdomain *v*-Scale Score with the *v*-Scale Score of Every Other Subdomain

Ages 0:0–0:11

	Communication			Daily Living Skills			Socialization			Motor Skills	
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine
	v-Scale Score Difference Required for Significance										
Receptive	—	4	—	4	—	—	4	4	—	4	4
Expressive	5	—	—	3	—	—	3	3	—	2	3
Written	—	—	—	—	—	—	—	—	—	—	—
Personal	5	4	—	—	—	—	4	4	—	3	4
Domestic	—	—	—	—	—	—	—	—	—	—	—
Community	—	—	—	—	—	—	—	—	—	—	—
Interpersonal Relationships	5	4	—	5	—	—	—	3	—	3	3
Play and Leisure Time	5	4	—	5	—	—	4	—	—	3	3
Coping Skills	—	—	—	—	—	—	—	—	—	—	—
Gross	5	3	—	4	—	—	4	4	—	—	3
Fine	5	4	—	5	—	—	4	4	—	4	—

Differences of .05 significance presented above diagonal; differences of .01 significance presented below diagonal

Note: Values were obtained by using the Difference Score formula, Sattler (2001, p. 301), and were rounded to integers.

Ages 1:0–1:11

	Communication			Daily Living Skills			Socialization			Motor Skills	
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine
	v-Scale Score Difference Required for Significance										
Receptive	—	2	—	3	4	4	3	3	4	3	3
Expressive	3	—	—	2	3	4	2	3	4	2	3
Written	—	—	—	—	—	—	—	—	—	—	—
Personal	4	3	—	—	4	4	3	3	4	3	3
Domestic	5	4	—	5	—	4	4	4	4	3	4
Community	5	5	—	5	6	—	4	4	5	4	4
Interpersonal Relationships	4	3	—	4	5	5	—	3	4	3	3
Play and Leisure Time	4	4	—	4	5	5	4	—	4	3	3
Coping Skills	5	5	—	5	6	6	5	5	—	4	4
Gross	4	3	—	4	4	5	4	4	5	—	3
Fine	4	4	—	4	5	5	4	4	5	4	—

Differences of .05 significance presented above diagonal; differences of .01 significance presented below diagonal

Note: Values were obtained by using the Difference Score formula, Sattler (2001, p. 301), and were rounded to integers.

continued on next page

Table D.3 *continued*

Ages 2:0–2:11

	Communication			Daily Living Skills			Socialization			Motor Skills	
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine
	v-Scale Score Difference Required for Significance										
Receptive	—	3	—	4	4	4	4	4	4	4	4
Expressive	4	—	—	3	4	3	3	3	3	3	3
Written	—	—	—	—	—	—	—	—	—	—	—
Personal	5	4	—	—	4	4	3	4	3	3	4
Domestic	5	5	—	5	—	4	4	4	4	4	4
Community	5	4	—	5	6	—	4	4	4	4	4
Interpersonal Relationships	5	4	—	4	5	5	—	4	3	3	3
Play and Leisure Time	5	4	—	5	5	5	5	—	4	4	4
Coping Skills	5	4	—	4	5	5	4	5	—	3	4
Gross	5	4	—	4	5	5	4	5	4	—	3
Fine	5	4	—	5	5	5	4	5	5	4	—

Differences of .05 significance presented above diagonal; differences of .01 significance presented below diagonal
Note: Values were obtained by using the Difference Score formula, Sattler (2001, p. 301), and were rounded to integers.

Ages 3:0–3:11

	Communication			Daily Living Skills			Socialization			Motor Skills	
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine
	v-Scale Score Difference Required for Significance										
Receptive	—	3	5	4	4	4	4	4	4	4	4
Expressive	4	—	4	3	4	4	3	3	3	3	3
Written	6	5	—	4	5	5	4	4	4	4	4
Personal	5	4	5	—	4	4	3	4	3	4	3
Domestic	6	5	6	5	—	5	4	4	4	4	4
Community	5	5	6	5	6	—	4	4	4	4	4
Interpersonal Relationships	5	4	5	4	5	5	—	4	3	4	3
Play and Leisure Time	5	4	6	5	6	5	5	—	3	4	4
Coping Skills	5	4	5	4	5	5	4	4	—	3	3
Gross	5	4	6	5	6	5	5	5	4	—	4
Fine	5	4	5	4	5	5	4	5	4	5	—

Differences of .05 significance presented above diagonal; differences of .01 significance presented below diagonal
Note: Values were obtained by using the Difference Score formula, Sattler (2001, p. 301), and were rounded to integers.

continued on next page

Table D.3 *continued*

Ages 4:0–4:11

	Communication			Daily Living Skills			Socialization			Motor Skills	
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine
	v-Scale Score Difference Required for Significance										
Receptive	—	4	4	5	4	4	4	5	4	4	4
Expressive	5	—	3	4	4	3	3	4	3	3	3
Written	6	4	—	4	4	4	4	4	4	4	4
Personal	6	5	6	—	5	4	4	5	4	4	4
Domestic	6	5	5	6	—	4	4	4	4	4	4
Community	6	4	5	6	5	—	4	4	4	4	4
Interpersonal Relationships	5	4	5	5	5	5	—	4	3	4	3
Play and Leisure Time	6	5	5	6	5	5	5	—	4	4	4
Coping Skills	5	4	5	5	5	5	4	5	—	4	3
Gross	6	4	5	6	5	5	5	5	5	—	4
Fine	5	4	5	5	5	5	4	5	4	5	—

Differences of .05 significance presented above diagonal; differences of .01 significance presented below diagonal

Note: Values were obtained by using the Difference Score formula, Sattler (2001, p. 301), and were rounded to integers.

Ages 5:0–5:11

	Communication			Daily Living Skills			Socialization			Motor Skills	
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine
	v-Scale Score Difference Required for Significance										
Receptive	—	4	4	4	4	4	4	4	4	4	4
Expressive	5	—	3	4	3	3	3	4	3	4	3
Written	5	4	—	4	3	3	3	4	3	4	4
Personal	6	5	5	—	4	4	4	4	4	4	4
Domestic	5	4	4	5	—	4	4	4	3	4	4
Community	5	4	4	5	5	—	4	4	3	4	4
Interpersonal Relationships	5	4	4	5	5	5	—	4	3	4	4
Play and Leisure Time	6	5	5	6	5	5	5	—	4	4	4
Coping Skills	5	4	4	5	4	4	4	5	—	4	4
Gross	6	5	5	6	5	5	5	6	5	—	4
Fine	5	4	5	5	5	5	5	5	5	5	—

Differences of .05 significance presented above diagonal; differences of .01 significance presented below diagonal

Note: Values were obtained by using the Difference Score formula, Sattler (2001, p. 301), and were rounded to integers.

continued on next page

Table D.3 *continued*

Ages 6:0–6:11

	Communication			Daily Living Skills			Socialization			Motor Skills	
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine
	v-Scale Score Difference Required for Significance										
Receptive	—	4	4	5	4	4	4	4	4	4	4
Expressive	5	—	3	4	4	3	3	4	3	3	4
Written	5	4	—	4	3	3	3	4	3	3	4
Personal	6	5	5	—	4	4	4	4	4	4	4
Domestic	5	5	4	5	—	3	3	4	3	4	4
Community	5	4	4	5	4	—	3	4	3	3	4
Interpersonal Relationships	5	4	4	5	4	4	—	4	3	3	4
Play and Leisure Time	6	5	5	5	5	5	5	—	3	4	4
Coping Skills	5	4	4	5	4	4	4	4	—	3	3
Gross	5	4	4	5	5	4	4	5	4	—	4
Fine	5	5	5	5	5	5	5	5	4	5	—

Differences of .05 significance presented above diagonal; differences of .01 significance presented below diagonal

Note: Values were obtained by using the Difference Score formula, Sattler (2001, p. 301), and were rounded to integers.

Ages 7:0–7:11

	Communication			Daily Living Skills			Socialization			Motor Skills[a]	
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine
	v-Scale Score Difference Required for Significance										
Receptive	—	4	4	4	4	4	4	4	4	—	—
Expressive	5	—	3	4	3	3	3	4	3	—	—
Written	5	4	—	4	4	3	3	4	3	—	—
Personal	5	5	5	—	4	4	4	4	4	—	—
Domestic	5	4	5	5	—	3	3	4	3	—	—
Community	5	4	4	5	4	—	3	4	3	—	—
Interpersonal Relationships	5	4	4	5	4	4	—	4	3	—	—
Play and Leisure Time	6	5	5	5	5	5	5	—	4	—	—
Coping Skills	5	4	4	5	4	4	4	5	—	—	—
Gross	—	—	—	—	—	—	—	—	—	—	—
Fine	—	—	—	—	—	—	—	—	—	—	—

Differences of .05 significance presented above diagonal; differences of .01 significance presented below diagonal

Note: Values were obtained by using the Difference Score formula, Sattler (2001, p. 301), and were rounded to integers.

[a] Administration of the Motor Skills Domain is optional for individuals aged 7–49. If this domain was administered for an individual aged 7–49 and an estimated standard score was obtained, do not use Motor Skills in the comparisons.

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Table D.3 *continued*

Ages 8:0–8:11

	Communication			Daily Living Skills			Socialization			Motor Skills[a]	
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine
	v-Scale Score Difference Required for Significance										
Receptive	—	4	4	4	4	4	4	4	4	—	—
Expressive	5	—	4	4	4	4	4	4	4	—	—
Written	5	5	—	4	4	3	3	4	3	—	—
Personal	5	5	5	—	4	4	4	4	4	—	—
Domestic	5	5	5	5	—	3	3	4	3	—	—
Community	5	5	4	5	4	—	3	4	3	—	—
Interpersonal Relationships	5	5	4	5	4	4	—	4	3	—	—
Play and Leisure Time	5	5	5	6	5	5	5	—	4	—	—
Coping Skills	5	5	4	5	4	4	4	5	—	—	—
Gross	—	—	—	—	—	—	—	—	—	—	—
Fine	—	—	—	—	—	—	—	—	—	—	—

Differences of .05 significance presented above diagonal; differences of .01 significance presented below diagonal

Note: Values were obtained by using the Difference Score formula, Sattler (2001, p. 301), and were rounded to integers.

[a] Administration of the Motor Skills Domain is optional for individuals aged 7–49. If this domain was administered for an individual aged 7–49 and an estimated standard score was obtained, do not use Motor Skills in the comparisons.

Ages 9:0–9:11

	Communication			Daily Living Skills			Socialization			Motor Skills[a]	
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine
	v-Scale Score Difference Required for Significance										
Receptive	—	4	4	4	4	4	4	4	4	—	—
Expressive	5	—	4	4	4	4	3	4	4	—	—
Written	5	5	—	4	4	4	3	4	4	—	—
Personal	6	6	6	—	4	4	4	5	4	—	—
Domestic	5	5	5	6	—	4	3	4	4	—	—
Community	5	5	5	6	5	—	3	4	4	—	—
Interpersonal Relationships	5	4	4	5	4	4	—	4	4	—	—
Play and Leisure Time	6	5	5	6	5	5	5	—	4	—	—
Coping Skills	5	5	5	6	5	5	5	6	—	—	—
Gross	—	—	—	—	—	—	—	—	—	—	—
Fine	—	—	—	—	—	—	—	—	—	—	—

Differences of .05 significance presented above diagonal; differences of .01 significance presented below diagonal

Note: Values were obtained by using the Difference Score formula, Sattler (2001, p. 301), and were rounded to integers.

[a] Administration of the Motor Skills Domain is optional for individuals aged 7–49. If this domain was administered for an individual aged 7–49 and an estimated standard score was obtained, do not use Motor Skills in the comparisons.

continued on next page

Table D.3 *continued*

Ages 10:0–10:11

	Communication			Daily Living Skills			Socialization			Motor Skills[a]	
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine
	v-Scale Score Difference Required for Significance										
Receptive	—	4	4	5	4	4	4	4	4	—	—
Expressive	5	—	4	4	4	4	4	4	4	—	—
Written	5	5	—	4	4	4	4	4	4	—	—
Personal	6	6	6	—	4	5	4	5	4	—	—
Domestic	5	5	5	6	—	4	4	4	4	—	—
Community	5	5	5	6	5	—	4	4	4	—	—
Interpersonal Relationships	5	5	5	6	5	5	—	4	4	—	—
Play and Leisure Time	6	5	5	6	5	5	5	—	4	—	—
Coping Skills	5	5	5	6	5	5	5	5	—	—	—
Gross	—	—	—	—	—	—	—	—	—	—	—
Fine	—	—	—	—	—	—	—	—	—	—	—

Differences of .05 significance presented above diagonal; differences of .01 significance presented below diagonal

Note: Values were obtained by using the Difference Score formula, Sattler (2001, p. 301), and were rounded to integers.

[a] Administration of the Motor Skills Domain is optional for individuals aged 7–49. If this domain was administered for an individual aged 7–49 and an estimated standard score was obtained, do not use Motor Skills in the comparisons.

Ages 11:0–11:11

	Communication			Daily Living Skills			Socialization			Motor Skills[a]	
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine
	v-Scale Score Difference Required for Significance										
Receptive	—	4	4	5	4	4	4	5	4	—	—
Expressive	5	—	3	4	3	4	3	4	4	—	—
Written	5	4	—	5	4	4	4	4	4	—	—
Personal	6	5	6	—	5	5	4	5	5	—	—
Domestic	5	4	5	6	—	4	4	4	4	—	—
Community	5	5	5	6	5	—	4	5	4	—	—
Interpersonal Relationships	5	4	5	6	5	5	—	4	4	—	—
Play and Leisure Time	6	5	6	6	6	6	6	—	4	—	—
Coping Skills	5	5	5	6	5	5	5	6	—	—	—
Gross	—	—	—	—	—	—	—	—	—	—	—
Fine	—	—	—	—	—	—	—	—	—	—	—

Differences of .05 significance presented above diagonal; differences of .01 significance presented below diagonal

Note: Values were obtained by using the Difference Score formula, Sattler (2001, p. 301), and were rounded to integers.

[a] Administration of the Motor Skills Domain is optional for individuals aged 7–49. If this domain was administered for an individual aged 7–49 and an estimated standard score was obtained, do not use Motor Skills in the comparisons.

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Table D.3 *continued*

Ages 12:0–13:11

	Communication			Daily Living Skills			Socialization			Motor Skills[a]	
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine
	v-Scale Score Difference Required for Significance										
Receptive	—	3	4	4	4	4	4	4	4	—	—
Expressive	4	—	3	4	3	4	3	4	4	—	—
Written	5	4	—	4	4	4	4	4	4	—	—
Personal	6	5	6	—	4	4	4	5	5	—	—
Domestic	5	4	5	6	—	4	3	4	4	—	—
Community	5	5	5	6	5	—	4	4	4	—	—
Interpersonal Relationships	5	4	5	5	4	5	—	4	4	—	—
Play and Leisure Time	6	5	6	6	6	6	5	—	5	—	—
Coping Skills	5	5	5	6	5	5	5	6	—	—	—
Gross	—	—	—	—	—	—	—	—	—	—	—
Fine	—	—	—	—	—	—	—	—	—	—	—

Differences of .05 significance presented above diagonal; differences of .01 significance presented below diagonal

Note: Values were obtained by using the Difference Score formula, Sattler (2001, p. 301), and were rounded to integers.

[a] Administration of the Motor Skills Domain is optional for individuals aged 7–49. If this domain was administered for an individual aged 7–49 and an estimated standard score was obtained, do not use Motor Skills in the comparisons.

Ages 14:0–15:11

	Communication			Daily Living Skills			Socialization			Motor Skills[a]	
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine
	v-Scale Score Difference Required for Significance										
Receptive	—	4	4	5	4	4	4	4	4	—	—
Expressive	5	—	4	5	4	4	4	4	4	—	—
Written	5	5	—	5	4	4	4	4	4	—	—
Personal	6	6	6	—	5	5	5	5	5	—	—
Domestic	5	5	5	6	—	4	4	4	4	—	—
Community	5	5	5	6	5	—	4	4	4	—	—
Interpersonal Relationships	5	5	5	6	5	6	—	4	4	—	—
Play and Leisure Time	5	5	5	6	5	6	6	—	4	—	—
Coping Skills	5	5	5	6	5	6	5	6	—	—	—
Gross	—	—	—	—	—	—	—	—	—	—	—
Fine	—	—	—	—	—	—	—	—	—	—	—

Differences of .05 significance presented above diagonal; differences of .01 significance presented below diagonal

Note: Values were obtained by using the Difference Score formula, Sattler (2001, p. 301), and were rounded to integers.

[a] Administration of the Motor Skills Domain is optional for individuals aged 7–49. If this domain was administered for an individual aged 7–49 and an estimated standard score was obtained, do not use Motor Skills in the comparisons.

continued on next page

Table D.3 *continued*

Ages 16:0–18:11

	Communication			Daily Living Skills			Socialization			Motor Skills[a]	
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine
	v-Scale Score Difference Required for Significance										
Receptive	—	3	3	4	3	4	3	3	3	—	—
Expressive	4	—	3	4	4	4	4	4	4	—	—
Written	4	4	—	4	4	4	4	4	4	—	—
Personal	5	5	6	—	5	5	5	5	5	—	—
Domestic	4	5	5	6	—	4	4	4	4	—	—
Community	5	5	5	6	5	—	4	4	4	—	—
Interpersonal Relationships	4	5	5	6	5	5	—	4	4	—	—
Play and Leisure Time	4	5	5	6	5	5	5	—	4	—	—
Coping Skills	4	5	5	6	5	5	5	5	—	—	—
Gross	—	—	—	—	—	—	—	—	—	—	—
Fine	—	—	—	—	—	—	—	—	—	—	—

Differences of .05 significance presented above diagonal; differences of .01 significance presented below diagonal

Note: Values were obtained by using the Difference Score formula, Sattler (2001, p. 301), and were rounded to integers.

[a] Administration of the Motor Skills Domain is optional for individuals aged 7–49. If this domain was administered for an individual aged 7–49 and an estimated standard score was obtained, do not use Motor Skills in the comparisons.

Ages 19:0–21:11

	Communication			Daily Living Skills			Socialization			Motor Skills[a]	
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine
	v-Scale Score Difference Required for Significance										
Receptive	—	2	3	3	3	4	3	4	3	—	—
Expressive	3	—	3	4	4	4	3	4	3	—	—
Written	4	4	—	4	4	4	3	4	4	—	—
Personal	4	5	5	—	4	4	4	4	4	—	—
Domestic	4	5	5	5	—	4	4	4	4	—	—
Community	5	5	5	6	6	—	4	5	4	—	—
Interpersonal Relationships	4	4	4	5	5	5	—	4	4	—	—
Play and Leisure Time	5	5	5	5	5	6	5	—	4	—	—
Coping Skills	4	4	5	5	5	6	5	5	—	—	—
Gross	—	—	—	—	—	—	—	—	—	—	—
Fine	—	—	—	—	—	—	—	—	—	—	—

Differences of .05 significance presented above diagonal; differences of .01 significance presented below diagonal

Note: Values were obtained by using the Difference Score formula, Sattler (2001, p. 301), and were rounded to integers.

[a] Administration of the Motor Skills Domain is optional for individuals aged 7–49. If this domain was administered for an individual aged 7–49 and an estimated standard score was obtained, do not use Motor Skills in the comparisons.

continued on next page

Table D.3 *continued*

Ages 22:0–31:11

	Communication			Daily Living Skills			Socialization			Motor Skills[a]	
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine
	v-Scale Score Difference Required for Significance										
Receptive	—	2	3	3	3	3	3	3	3	—	—
Expressive	3	—	3	3	2	3	3	3	2	—	—
Written	4	4	—	4	3	3	3	3	3	—	—
Personal	4	4	5	—	3	4	4	4	4	—	—
Domestic	4	3	4	4	—	3	3	3	3	—	—
Community	4	4	4	5	4	—	3	3	3	—	—
Interpersonal Relationships	4	4	4	5	4	4	—	3	3	—	—
Play and Leisure Time	4	4	4	5	4	4	4	—	3	—	—
Coping Skills	4	3	4	5	4	4	4	4	—	—	—
Gross	—	—	—	—	—	—	—	—	—	—	—
Fine	—	—	—	—	—	—	—	—	—	—	—

Differences of .05 significance presented above diagonal; differences of .01 significance presented below diagonal

Note: Values were obtained by using the Difference Score formula, Sattler (2001, p. 301), and were rounded to integers.

[a] Administration of the Motor Skills Domain is optional for individuals aged 7–49. If this domain was administered for an individual aged 7–49 and an estimated standard score was obtained, do not use Motor Skills in the comparisons.

Ages 32:0–51:11

	Communication			Daily Living Skills			Socialization			Motor Skills[a]	
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine
	v-Scale Score Difference Required for Significance										
Receptive	—	4	4	4	4	4	4	4	4	—	—
Expressive	5	—	4	3	3	3	3	4	3	—	—
Written	6	5	—	4	4	4	3	4	4	—	—
Personal	5	4	5	—	4	3	3	4	3	—	—
Domestic	5	4	5	5	—	3	3	4	3	—	—
Community	5	4	5	4	4	—	3	4	3	—	—
Interpersonal Relationships	5	4	4	4	4	4	—	3	3	—	—
Play and Leisure Time	6	5	5	5	5	5	4	—	4	—	—
Coping Skills	5	4	5	4	4	4	4	5	—	—	—
Gross	—	—	—	—	—	—	—	—	—	—	—
Fine	—	—	—	—	—	—	—	—	—	—	—

Differences of .05 significance presented above diagonal; differences of .01 significance presented below diagonal

Note: Values were obtained by using the Difference Score formula, Sattler (2001, p. 301), and were rounded to integers.

[a] Administration of the Motor Skills Domain is optional for individuals aged 7–49. If this domain was administered for an individual aged 7–49 and an estimated standard score was obtained, do not use Motor Skills in the comparisons.

continued on next page

Table D.3 *continued*

Ages 52:0–71:11

	Communication			Daily Living Skills			Socialization			Motor Skills[a]	
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine
	v-Scale Score Difference Required for Significance										
Receptive	—	4	5	5	5	5	5	5	4	5	5
Expressive	6	—	3	4	3	3	3	4	3	3	4
Written	6	4	—	4	4	4	4	4	3	4	4
Personal	6	5	5	—	4	4	4	4	4	4	4
Domestic	6	4	5	5	—	4	4	4	3	4	4
Community	6	4	5	5	5	—	4	4	3	4	4
Interpersonal Relationships	6	4	5	5	5	5	—	4	3	4	4
Play and Leisure Time	6	5	5	6	5	5	5	—	4	4	4
Coping Skills	6	4	4	5	4	4	4	5	—	3	4
Gross[a]	6	4	5	5	5	5	5	5	4	—	4
Fine[a]	6	5	5	6	5	5	5	6	5	5	—

Differences of .05 significance presented above diagonal; differences of .01 significance presented below diagonal

Note: Values were obtained by using the Difference Score formula, Sattler (2001, p. 301), and were rounded to integers.

[a] Includes ages 50–51

Ages 72:0–90:11

	Communication			Daily Living Skills			Socialization			Motor Skills	
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine
	v-Scale Score Difference Required for Significance										
Receptive	—	2	3	2	3	2	3	2	3	2	4
Expressive	3	—	3	2	2	2	3	2	2	2	4
Written	4	4	—	3	4	3	4	3	4	3	4
Personal	3	3	4	—	3	2	3	2	3	2	4
Domestic	4	3	5	4	—	3	4	3	3	3	4
Community	3	3	4	3	4	—	3	2	3	2	4
Interpersonal Relationships	4	4	5	4	5	4	—	3	4	3	4
Play and Leisure Time	3	3	4	3	4	3	4	—	3	3	4
Coping Skills	4	3	5	4	4	4	5	4	—	3	4
Gross	3	3	4	3	4	3	4	4	4	—	4
Fine	5	5	6	5	5	5	5	5	5	5	—

Differences of .05 significance presented above diagonal; differences of .01 significance presented below diagonal

Note: Values were obtained by using the Difference Score formula, Sattler (2001, p. 301), and were rounded to integers.

Table D.4 Pairwise Comparisons: Values Indicating Infrequently Occurring Differences when Comparing Each Subdomain *v*-Scale Score with the *v*-Scale Score of Every Other Subdomain

Ages 0:0–0:11

	Frequency of Difference (Extreme %)	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine
Receptive	16	—	2	—	3	—	—	3	3	—	3	3
	10	—	3	—	4	—	—	3	4–5	—	3–5	4
	5	—	4–7	—	5–6	—	—	4–5	6–8	—	6	5–6
	1	—	8+	—	7+	—	—	6+	9+	—	7+	7+
Expressive	16	2	—	—	3	—	—	3	3	—	3	3
	10	3	—	—	4	—	—	3	4	—	4	4
	5	4–7	—	—	5	—	—	4–5	5–6	—	5–6	5–7
	1	8+	—	—	6+	—	—	6+	7+	—	7+	8+
Written	16	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—
	5	—	—	—	—	—	—	—	—	—	—	—
	1	—	—	—	—	—	—	—	—	—	—	—
Personal	16	3	3	—	—	—	—	3	3	—	3	3
	10	4	4	—	—	—	—	4	4	—	4	4
	5	5–6	5	—	—	—	—	5–7	5	—	5–7	5–7
	1	7+	6+	—	—	—	—	8+	6+	—	8+	8+
Domestic	16	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—
	5	—	—	—	—	—	—	—	—	—	—	—
	1	—	—	—	—	—	—	—	—	—	—	—
Community	16	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—
	5	—	—	—	—	—	—	—	—	—	—	—
	1	—	—	—	—	—	—	—	—	—	—	—
Interpersonal Relationships	16	3	3	—	3	—	—	—	2	—	3	3
	10	3	3	—	4	—	—	—	3	—	4	4
	5	4–5	4–5	—	5–7	—	—	—	4–5	—	5–6	5–6
	1	6+	6+	—	8+	—	—	—	6+	—	7+	7+
Play and Leisure Time	16	3	3	—	3	—	—	2	—	—	3	3
	10	4–5	4	—	4	—	—	3	—	—	4	4
	5	6–8	5–6	—	5	—	—	4–5	—	—	5–6	5
	1	9+	7+	—	6+	—	—	6+	—	—	7+	6+
Coping Skills	16	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—
	5	—	—	—	—	—	—	—	—	—	—	—
	1	—	—	—	—	—	—	—	—	—	—	—
Gross	16	3	3	—	3	—	—	3	3	—	—	3
	10	3–5	4	—	4	—	—	4	4	—	—	3–4
	5	6	5–6	—	5–7	—	—	5–6	5–6	—	—	5
	1	7+	7+	—	8+	—	—	7+	7+	—	—	6+
Fine	16	3	3	—	3	—	—	3	3	—	3	—
	10	4	4	—	4	—	—	4	4	—	3–4	—
	5	5–6	5–7	—	5–7	—	—	5–6	5	—	5	—
	1	7+	8+	—	8+	—	—	7+	6+	—	6+	—

Note: Values were obtained by computing differences between every pair of *v*-scale scores and determining frequency distributions and cumulative percentages of the differences.

continued on next page

Table D.4 *continued*

Ages 1:0–1:11

	Frequency of Difference (Extreme %)	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine
Receptive	16	—	2	—	2	2	2	2	3	2	3	3
	10	—	2	—	3	3	3	3	3	3	3–4	4
	5	—	3	—	4–5	4	4–6	4	4–6	4–5	5–6	5
	1	—	4+	—	6+	5+	7+	5+	7+	6+	7+	6+
Expressive	16	2	—	—	2	2	2	2	3	2	3	3
	10	2	—	—	3	3	3	2	3	3	4	4
	5	3	—	—	4–5	4–5	4–6	3	4	4	5–6	5
	1	4+	—	—	6+	6+	7+	4+	5+	5+	7+	6+
Written	16	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—
	5	—	—	—	—	—	—	—	—	—	—	—
	1	—	—	—	—	—	—	—	—	—	—	—
Personal	16	2	2	—	—	2	2	2	3	2	3	3
	10	3	3	—	—	3	3	3	3–4	3	3	4
	5	4–5	4–5	—	—	4	4–5	4–5	5–6	4–5	4	5
	1	6+	6+	—	—	5+	6+	6+	7+	6+	5+	6+
Domestic	16	2	2	—	2	—	2	3	4	3	3	4
	10	3	3	—	3	—	3	4	4	3	4	5
	5	4	4–5	—	4	—	4–5	5	5–6	4	5–6	6–7
	1	5+	6+	—	5+	—	6+	6+	7+	5+	7+	8+
Community	16	2	2	—	2	2	—	4	4	3	4	5
	10	3	3	—	3	3	—	5	5	4	5	5
	5	4–6	4–6	—	4–5	4–5	—	6	6–7	5	6–7	6–8
	1	7+	7+	—	6+	6+	—	7+	8+	6+	8+	9+
Interpersonal Relationships	16	2	2	—	2	3	4	—	2	2	3	3
	10	3	2	—	3	4	5	—	3	3	4	4
	5	4	3	—	4–5	5	6	—	4	3–4	4	4–6
	1	5+	4+	—	6+	6+	7+	—	4+	5+	5+	7+
Play and Leisure Time	16	3	3	—	3	4	4	2	—	2	3	3
	10	3	3	—	3–4	4	5	3	—	3	3–4	4
	5	4–6	4	—	5–6	5–6	6–7	4	—	4–5	5–6	5
	1	7+	5+	—	7+	7+	8+	4+	—	6+	7+	6+
Coping Skills	16	2	2	—	2	3	3	2	2	—	4	4
	10	3	3	—	3	3	4	3	3	—	5–6	5–6
	5	4–5	4	—	4–5	4	5	3–4	4–5	—	7	7
	1	6+	5+	—	6+	5+	6+	5+	6+	—	8+	8+
Gross	16	3	3	—	3	3	4	3	3	4	—	3
	10	3–4	4	—	3	4	5	4	3–4	5–6	—	3
	5	5–6	5–6	—	4	5–6	6–7	4	5–6	7	—	4
	1	7+	7+	—	5+	7+	8+	5+	7+	8+	—	5+
Fine	16	3	3	—	3	4	5	3	3	4	3	—
	10	4	4	—	4	5	5	4	4	5–6	3	—
	5	5	5	—	5	6–7	6–8	4–6	5	7	4	—
	1	6+	6+	—	6+	8+	9+	7+	6+	8+	5+	—

Note: Values were obtained by computing differences between every pair of *v*-scale scores and determining frequency distributions and cumulative percentages of the differences.

continued on next page

Table D.4 *continued*

Ages 2:0–2:11

	Frequency of Difference (Extreme %)	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine
Receptive	16	—	2	—	2–3	3	3	2	2	2	3	3
	10	—	3	—	4	4	4	3	3	3	4	3
	5	—	3–4	—	4–5	5–6	5–6	4–5	4–5	4	5–6	4–5
	1	—	5+	—	6+	7+	7+	6+	6+	5+	7+	6+
Expressive	16	2	—	—	2	3	2	2	3	2	3	2
	10	3	—	—	3	4	3	3	3	3	4	3
	5	3–4	—	—	4–5	5	3–4	3	4	4	5–6	4–5
	1	5+	—	—	6+	6+	5+	4+	5+	5+	7+	6+
Written	16	—	—	—	—	—	—	—	—	—	—	—
	10	—	—	—	—	—	—	—	—	—	—	—
	5	—	—	—	—	—	—	—	—	—	—	—
	1	—	—	—	—	—	—	—	—	—	—	—
Personal	16	2–3	2	—	—	3	2	2	3	2	2	3
	10	4	3	—	—	4	3	3	3	3	3	4
	5	4–5	4–5	—	—	4–5	4–5	4–5	4–5	4	4–6	4
	1	6+	6+	—	—	6+	6+	6+	6+	5+	7+	5+
Domestic	16	3	3	—	3	—	2	3	3	3	3	3
	10	4	4	—	4	—	3	4	4	4	4–5	4
	5	5–6	5	—	4–5	—	4–6	5–6	5–6	5–6	6–7	5–6
	1	7+	6+	—	6+	—	7+	7+	7+	7+	8+	7+
Community	16	3	2	—	2	2	—	3	3	3	3	3
	10	4	3	—	3	3	—	3	4	4	4	4
	5	5–6	3–4	—	4–5	4–6	—	4–5	5	5	5–8	5–6
	1	7+	5+	—	6+	7+	—	6+	6+	6+	9+	7+
Interpersonal Relationships	16	2	2	—	2	3	3	—	2	2	3	2
	10	3	3	—	3	4	3	—	3	3	4	3
	5	4–5	3	—	4–5	5–6	4–5	—	3–4	4	5	4–5
	1	6+	4+	—	6+	7+	6+	—	5+	5+	6+	6+
Play and Leisure Time	16	2	3	—	3	3	3	2	—	2	3	2
	10	3	3	—	3	4	4	3	—	3	3	3
	5	4–5	4	—	4–5	5–6	5	3–4	—	4–5	4–5	4
	1	6+	5+	—	6+	7+	6+	5+	—	6+	6+	5+
Coping Skills	16	2	2	—	2	3	3	2	2	—	3	3
	10	3	3	—	3	4	4	3	3	—	4	4
	5	4	4	—	4	5–6	5	4	4–5	—	5	5
	1	5+	5+	—	5+	7+	6+	5+	6+	—	6+	6+
Gross	16	3	3	—	2	3	3	3	3	3	—	2
	10	4	4	—	3	4–5	4	4	3	4	—	3
	5	5–6	5–6	—	4–6	6–7	5–8	5	4–5	5	—	4–5
	1	7+	7+	—	7+	8+	9+	6+	6+	6+	—	6+
Fine	16	3	2	—	3	3	3	2	2	3	2	—
	10	3	3	—	4	4	4	3	3	4	3	—
	5	4–5	4–5	—	4	5–6	5–6	4–5	4	5	4–5	—
	1	6+	6+	—	5+	7+	7+	6+	5+	6+	6+	—

Note: Values were obtained by computing differences between every pair of *v*-scale scores and determining frequency distributions and cumulative percentages of the differences.

continued on next page

Table D.4 *continued*

Ages 3:0–3:11

	Frequency of Difference (Extreme %)	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine
Receptive	16	—	2	3	3	3	3	3	2	3	3	3
	10	—	3	3–4	4	4	3	3	3	4	4	4
	5	—	4	5	5	5	4	4–6	4–5	4–5	5–7	5
	1	—	5+	6+	6+	6+	5+	7+	6+	6+	8+	6+
Expressive	16	2	—	2	3	3	2	2	3	3	2	3
	10	3	—	3	4	4	3	3	3	3	3	4
	5	4	—	4–5	5–6	5	4–5	3–4	4	4–6	4–6	4–5
	1	5+	—	6+	7+	6+	6+	5+	5+	7+	7+	6+
Written	16	3	2	—	4	4	4	4–5	4	4	4	4
	10	3–4	3	—	5	5	5	6	5	5	4–5	4
	5	5	4–5	—	6–8	6–7	5–6	6	6–7	6–7	6–7	5
	1	6+	6+	—	9+	8+	7+	7+	8+	8+	8+	6+
Personal	16	3	3	4	—	3	2	3	3	2–3	2	3
	10	4	4	5	—	4	3	4	3–4	4	3	4
	5	5	5–6	6–8	—	4–5	4–6	5	5	5–6	4–5	4–5
	1	6+	7+	9+	—	6+	7+	6+	6+	7+	6+	6+
Domestic	16	3	3	4	3	—	2	2	2	2	3	3
	10	4	4	5	4	—	3	3	3	3–4	3–4	4
	5	5	5	6–7	4–5	—	4	4–6	4–5	5	5–6	5
	1	6+	6+	8+	6+	—	5+	7+	6+	6+	7+	6+
Community	16	3	2	4	2	2	—	3	2	2	2	2
	10	3	3	5	3	3	—	3	3	3	3	3
	5	4	4–5	5–6	4–6	4	—	4–5	4–5	4–5	3–5	4–5
	1	5+	6+	7+	7+	5+	—	6+	6+	6+	6+	6+
Interpersonal Relationships	16	3	2	4–5	3	2	3	—	2	2	2	3
	10	3	3	6	4	3	3	—	2	3	3–4	3–5
	5	4–6	3–4	6	5	4–6	4–5	—	3–4	4–5	5–6	6
	1	7+	5+	7+	6+	7+	6+	—	5+	6+	7+	7+
Play and Leisure Time	16	2	3	4	3	2	2	2	—	2	3	2
	10	3	3	5	3–4	3	3	2	—	3	3	3–4
	5	4–5	4	6–7	5	4–5	4–5	3–4	—	3–4	4–6	5–6
	1	6+	5+	8+	6+	6+	6+	5+	—	5+	7+	7+
Coping Skills	16	3	3	4	2–3	2	2	2	2	—	3	3
	10	4	3	5	4	3–4	3	3	3	—	4	4
	5	4–5	4–6	6–7	5–6	5	4–5	4–5	3–4	—	4–5	5
	1	6+	7+	8+	7+	6+	6+	6+	5+	—	6+	6+
Gross	16	3	2	4	2	3	2	2	3	3	—	3
	10	4	3	4–5	3	3–4	3	3–4	3	4	—	4
	5	5–7	4–6	6–7	4–5	5–6	3–5	5–6	4–6	4–5	—	5–6
	1	8+	7+	8+	6+	7+	6+	7+	7+	6+	—	7+
Fine	16	3	3	4	3	3	2	3	2	3	3	—
	10	4	4	4	4	4	3	3–5	3–4	4	4	—
	5	5	4–5	5	4–5	5	4–5	6	5–6	5	5–6	—
	1	6+	6+	6+	6+	6+	6+	7+	7+	6+	7+	—

Note: Values were obtained by computing differences between every pair of *v*-scale scores and determining frequency distributions and cumulative percentages of the differences.

continued on next page

Table D.4 *continued*

Ages 4:0–4:11

	Frequency of Difference (Extreme %)	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine
Receptive	16	—	2	3	3	3	3	3	3	3	3	3
	10	—	3	4	4	4	4	3	3–4	4	4–5	4
	5	—	3–4	5–7	5–8	5–6	5–6	4–5	5–6	5	6–7	5–6
	1	—	5+	8+	9+	7+	7+	6+	7+	6+	8+	7+
Expressive	16	2	—	3	3	3	3	3	3	3	3	3
	10	3	—	4	4	4	3–4	3	3–4	4	3–4	4
	5	3–4	—	5–7	5–6	5	5–6	4	5–6	5–6	5–6	5–6
	1	5+	—	8+	7+	6+	7+	5+	7+	7+	7+	7+
Written	16	3	3	—	4	4	3	4	3	4	3–4	3
	10	4	4	—	5	5	4	5	4	5	5	4
	5	5–7	5–7	—	6–9	6–8	5–6	5–7	5–8	6–7	5–8	5–6
	1	8+	8+	—	10+	9+	7+	8+	9+	8+	9+	7+
Personal	16	3	3	4	—	2	3	3	3	3	3	3
	10	4	4	5	—	3	3	3	4	4	4	4
	5	5–8	5–6	6–9	—	4–5	4	4–5	5–7	4–6	5	4–6
	1	9+	7+	10+	—	6+	5+	6+	8+	7+	6+	7+
Domestic	16	3	3	4	2	—	2	3	3	3	3	3
	10	4	4	5	3	—	3	4	4	4	3–4	4
	5	5–6	5	6–8	4–5	—	4–6	5–6	5	5–6	5–7	5–6
	1	7+	6+	9+	6+	—	7+	7+	6+	7+	8+	7+
Community	16	3	3	3	3	2	—	2	2	3	2	3
	10	4	3–4	4	3	3	—	3	3–4	3	3–4	4
	5	5–6	5–6	5–6	4	4–6	—	4–5	5–7	4–5	5	5–7
	1	7+	7+	7+	5+	7+	—	6+	8+	6+	6+	8+
Interpersonal Relationships	16	3	3	4	3	3	2	—	2	2	2	3
	10	3	3	5	3	4	3	—	3	3	3	4
	5	4–5	4	5–7	4–5	5–6	4–5	—	4–5	4	4–5	4–7
	1	6+	5+	8+	6+	7+	6+	—	6+	5+	6+	8+
Play and Leisure Time	16	3	3	3	3	3	2	2	—	2	2–3	3
	10	3–4	3–4	4	4	4	3–4	3	—	3	4	4
	5	5–6	5–6	5–8	5–7	5	5–7	4–5	—	3–5	5–6	5–6
	1	7+	7+	9+	8+	6+	8+	6+	—	6+	7+	7+
Coping Skills	16	3	3	4	3	3	3	2	2	—	3	3
	10	4	4	5	4	4	3	3	3	—	3	4
	5	5	5–6	6–7	4–6	5–6	4–5	4	3–5	—	4–5	5–6
	1	6+	7+	8+	7+	7+	6+	5+	6+	—	6+	7+
Gross	16	3	3	3–4	3	3	2	2	2–3	3	—	3
	10	4–5	3–4	5	4	3–4	3–4	3	4	3	—	4
	5	6–7	5–6	5–8	5	5–7	5	4–5	5–6	4–5	—	5–7
	1	8+	7+	9+	6+	8+	6+	6+	7+	6+	—	8+
Fine	16	3	3	3	3	3	3	3	3	3	3	—
	10	4	4	4	4	4	4	4	4	4	4	—
	5	5–6	5–6	5–6	4–6	5–6	5–7	4–7	5–6	5–6	5–7	—
	1	7+	7+	7+	7+	7+	8+	8+	7+	7+	8+	—

Note: Values were obtained by computing differences between every pair of *v*-scale scores and determining frequency distributions and cumulative percentages of the differences.

continued on next page

Table D.4 *continued*

Ages 5:0–5:11

	Frequency of Difference (Extreme %)	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine
Receptive	16	—	3	3	3	3	3	3	3	2	2	3
	10	—	3	4	4	4	4	4	3	3	3–4	4
	5	—	4–6	5–7	5–6	5–6	5–6	4	4–5	4–5	5–8	5–9
	1	—	7+	8+	7+	7+	7+	5+	6+	6+	9+	10+
Expressive	16	3	—	3	3	3	2	2	2	2	2	3
	10	3	—	4	4	3–4	3	3	3	3	3	4
	5	4–6	—	5–7	5–7	5–6	4–6	3–4	4–5	4	4–7	5–6
	1	7+	—	8+	8+	7+	7+	5+	6+	5+	8+	7+
Written	16	3	3	—	3	3	2	3	3	3	2	3
	10	4	4	—	4	4	3	4	4	3–4	3–4	4
	5	5–7	5–7	—	5–6	5–6	4	5–6	5–7	5–6	5–8	5
	1	8+	8+	—	7+	7+	5+	7+	8+	7+	9+	6+
Personal	16	3	3	3	—	3	3	3	3	3	3	3
	10	4	4	4	—	4	4	4	4	4	4	4
	5	5–6	5–7	5–6	—	4–5	5–6	5	5–8	4–5	5–7	5–6
	1	7+	8+	7+	—	6+	7+	6+	9+	6+	8+	7+
Domestic	16	3	3	3	3	—	2	2	2	2	2–3	3
	10	4	3–4	4	4	—	3	3	3	3	4–5	4
	5	5–6	5–6	5–6	4–5	—	4–6	4	4–6	4	6	5–6
	1	7+	7+	7+	6+	—	7+	5+	7+	5+	7+	7+
Community	16	3	2	2	3	2	—	3	2	3	3	3
	10	4	3	3	4	3	—	4	3	3	4–5	4
	5	5–6	4–6	4	5–6	4–6	—	5	4–8	4–6	6–8	5–7
	1	7+	7+	5+	7+	7+	—	6+	9+	7+	9+	8+
Interpersonal Relationships	16	3	2	3	3	2	3	—	2	2	3	3
	10	4	3	4	4	3	4	—	3	2	3	4
	5	4	3–4	5–6	5	4	5	—	4	3	4–7	5–6
	1	5+	5+	7+	6+	5+	6+	—	5+	4+	8+	7+
Play and Leisure Time	16	3	2	3	3	2	2	2	—	2	2	3
	10	3	3	4	4	3	3	3	—	2	3–4	4
	5	4–5	4–5	5–7	5–8	4–6	4–8	4	—	3–4	5–6	5–7
	1	6+	6+	8+	9+	7+	9+	5+	—	5+	7+	8+
Coping Skills	16	2	2	3	3	2	3	2	2	—	3	3
	10	3	3	3–4	4	3	3	2	2	—	4	4
	5	4–5	4	5–6	4–5	4	4–6	3	3–4	—	5–9	5–7
	1	6+	5+	7+	6+	5+	7+	4+	5+	—	10+	8+
Gross	16	2	2	2	3	2–3	3	3	2	3	—	3
	10	3–4	3	3–4	4	4–5	4–5	3	3–4	4	—	4
	5	5–8	4–7	5–8	5–7	6	6–8	4–7	5–6	5–9	—	5–7
	1	9+	8+	9+	8+	7+	9+	8+	7+	10+	—	8+
Fine	16	3	3	3	3	3	3	3	3	3	3	—
	10	4	4	4	4	4	4	4	4	4	4	—
	5	5–9	5–6	5	5–6	5–6	5–7	5–6	5–7	5–7	5–7	—
	1	10+	7+	6+	7+	7+	8+	7+	8+	8+	8+	—

Note: Values were obtained by computing differences between every pair of *v*-scale scores and determining frequency distributions and cumulative percentages of the differences.

continued on next page

Table D.4 *continued*

Ages 6:0–6:11

	Frequency of Difference (Extreme %)	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine
Receptive	16	—	3	3	3	2–3	3	2	3	3	2–3	2
	10	—	3	4	4	4	4	3	3–4	4	4	3
	5	—	4–5	5–8	5	5–6	5–6	4–5	5–6	5–6	5	4–5
	1	—	6+	9+	6+	7+	7+	6+	7+	7+	6+	6+
Expressive	16	3	—	3	3	3	2	2	3	2–3	3	2
	10	3	—	4	4	4	3	3	3	4	3–4	2
	5	4–5	—	5	5–7	4–6	3–4	4	4–6	4–6	5–6	3–4
	1	6+	—	6+	8+	7+	5+	5+	7+	7+	7+	5+
Written	16	3	3	—	3	2	2	3	2	3	2	2
	10	4	4	—	4	3–4	3	3–4	3–4	4	3	2
	5	5–8	5	—	5–7	5–7	4–5	5–6	5–6	5–7	4–6	3–4
	1	9+	6+	—	8+	8+	6+	7+	7+	8+	7+	5+
Personal	16	3	3	3	—	3	3	3	3	3	2–3	2
	10	4	4	4	—	3	3	4	4	4	4	3
	5	5	5–7	5–7	—	4–5	4–5	5–6	4–5	5	5	4
	1	6+	8+	8+	—	6+	6+	7+	6+	6+	6+	5+
Domestic	16	2–3	3	2	3	—	2–3	3	3	3	2–3	2
	10	4	4	3–4	3	—	4	3	4	4	4	3
	5	5–6	4–6	5–7	4–5	—	4–6	4–5	5–6	5–6	5–6	4–6
	1	7+	7+	8+	6+	—	7+	6+	7+	7+	7+	7+
Community	16	3	2	2	3	2–3	—	2	2	2	3	2
	10	4	3	3	3	4	—	3	3	3	4	2
	5	5–6	3–4	4–5	4–5	4–6	—	4–5	4–5	4–6	5	3–4
	1	7+	5+	6+	6+	7+	—	6+	6+	7+	6+	5+
Interpersonal Relationships	16	2	2	3	3	3	2	—	2	2	2	2
	10	3	3	3–4	4	3	3	—	3	3	3	3
	5	4–5	4	5–6	5–6	4–5	4–5	—	4–5	4–5	4–7	4–5
	1	6+	5+	7+	7+	6+	6+	—	6+	6+	8+	6+
Play and Leisure Time	16	3	3	2	3	3	2	2	—	2	2	2
	10	3–4	3	3–4	4	4	3	3	—	3	3	3
	5	5–6	4–6	5–6	4–5	5–6	4–5	4–5	—	4–5	4–7	4
	1	7+	7+	7+	6+	7+	6+	6+	—	6+	8+	5+
Coping Skills	16	3	2–3	3	3	3	2	2	2	—	3	2
	10	4	4	4	4	4	3	3	3	—	4	3
	5	5–6	4–6	5–7	5	5–6	4–6	4–5	4–5	—	5	4–6
	1	7+	7+	8+	6+	7+	7+	6+	6+	—	6+	7+
Gross	16	2–3	3	2	2–3	2–3	3	2	2	3	—	3
	10	4	3–4	3	4	4	4	3	3	4	—	3
	5	5	5–6	4–6	5	5–6	5	4–7	4–7	5	—	4–5
	1	6+	7+	7+	6+	7+	6+	8+	8+	6+	—	6+
Fine	16	2	2	2	2	2	2	2	2	2	3	—
	10	3	2	2	3	3	2	3	3	3	3	—
	5	4–5	3–4	3–4	4	4–6	3–4	4–5	4	4–6	4–5	—
	1	6+	5+	5+	5+	7+	5+	6+	5+	7+	6+	—

Note: Values were obtained by computing differences between every pair of *v*-scale scores and determining frequency distributions and cumulative percentages of the differences.

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Table D.4 *continued*

Ages 7:0–7:11

	Frequency of Difference (Extreme %)	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills
Receptive	16	—	3	3	3	2	3	2	3	3
	10	—	3–4	4	4	3	4	3	3	4
	5	—	5–7	5	5–7	4	5–6	3–4	4–5	4–6
	1	—	8+	6+	8+	5+	7+	5+	6+	7+
Expressive	16	3	—	3	3	3	3	1	2	3
	10	3–4	—	3–4	4	3	4	2	3	3–4
	5	5–7	—	5–6	5–6	4–5	4–6	3–5	4–7	5
	1	8+	—	7+	7+	6+	7+	6+	8+	6+
Written	16	3	3	—	2	2	2	2	2	2
	10	4	3–4	—	3	3	3	3	3	3–4
	5	5	5–6	—	4–5	4–5	4–5	4–5	4–7	5–7
	1	6+	7+	—	6+	6+	6+	6+	8+	8+
Personal	16	3	3	2	—	2	3	2	3	3
	10	4	4	3	—	3	3	3	4	4
	5	5–7	5–6	4–5	—	3–5	4	4–5	5–6	5–6
	1	8+	7+	6+	—	6+	5+	6+	7+	7+
Domestic	16	2	3	2	2	—	3	2	3	3
	10	3	3	3	3	—	3	3	4	4
	5	4	4–5	4–5	3–5	—	4–6	4–5	5	5–6
	1	5+	6+	6+	6+	—	7+	6+	6+	7+
Community	16	3	3	2	3	3	—	1	2	2
	10	4	4	3	3	3	—	2	3	3–4
	5	5–6	4–6	4–5	4	4–6	—	3–4	4–6	5–6
	1	7+	7+	6+	5+	7+	—	5+	7+	7+
Interpersonal Relationships	16	2	1	2	2	2	1	—	2	3
	10	3	2	3	3	3	2	—	3	3
	5	3–4	3–5	4–5	4–5	4–5	3–4	—	4–6	4
	1	5+	6+	6+	6+	6+	5+	—	7+	5+
Play and Leisure Time	16	3	2	2	3	3	2	2	—	3
	10	3	3	3	4	4	3	3	—	4
	5	4–5	4–7	4–7	5–6	5	4–6	4–6	—	4
	1	6+	8+	8+	7+	6+	7+	7+	—	5+
Coping Skills	16	3	3	2	3	3	2	3	3	—
	10	4	3–4	3–4	4	4	3–4	3	4	—
	5	4–6	5	5–7	5–6	5–6	5–6	4	4	—
	1	7+	6+	8+	7+	7+	7+	5+	5+	—

Note: Values were obtained by computing differences between every pair of *v*-scale scores and determining frequency distributions and cumulative percentages of the differences.

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Table D.4 *continued*

Ages 8:0–8:11

	Frequency of Occurrence (Cumulative %)	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills
Receptive	16	—	3	3	4	3	3	3	2–3	3
	10	—	4	4	5	4	4	3	4	4
	5	—	5–7	5–6	5–8	5–6	5–6	4–6	5–7	4–8
	1	—	8+	7+	9+	7+	7+	7+	8+	9+
Expressive	16	3	—	2	3	3	2	2	2	3
	10	4	—	3	4	3	3	3	3	3
	5	5–7	—	4	5–6	4	4	4	4–5	4–6
	1	8+	—	5+	7+	5+	5+	5+	6+	7+
Written	16	3	2	—	3	3	3	2	3	3
	10	4	3	—	4	4	3	3–4	3	4
	5	5–6	4	—	5–7	5–6	4	5–6	4–6	5–6
	1	7+	5+	—	8+	7+	5+	7+	7+	7+
Personal	16	4	3	3	—	3	3	2	3	3
	10	5	4	4	—	3	3	3	3	3–4
	5	5–8	5–6	5–7	—	4–6	4	4–6	4–6	5
	1	9+	7+	8+	—	7+	5+	7+	7+	6+
Domestic	16	3	3	3	3	—	2–3	2	3	2–3
	10	4	3	4	3	—	4	3	4	4
	5	5–6	4	5–6	4–6	—	4–5	4–6	5–6	5–7
	1	7+	5+	7+	7+	—	6+	7+	7+	8+
Community	16	3	2	3	3	2–3	—	2	2	2
	10	4	3	3	3	4	—	2–3	3	3
	5	5–6	4	4	4	4–5	—	4–5	4–6	4–5
	1	7+	5+	5+	5+	6+	—	6+	7+	6+
Interpersonal Relationships	16	3	2	2	2	2	2	—	2	2
	10	3	3	3–4	3	3	2–3	—	2–3	3
	5	4–6	4	5–6	4–6	4–6	4–5	—	4–5	4–6
	1	7+	5+	7+	7+	7+	6+	—	6+	7+
Play and Leisure Time	16	2–3	2	3	3	3	2	2	—	3
	10	4	3	3	3	4	3	2–3	—	3
	5	5–7	4–5	4–6	4–6	5–6	4–6	4–5	—	4–5
	1	8+	6+	7+	7+	7+	7+	6+	—	6+
Coping Skills	16	3	3	3	3	2–3	2	2	3	—
	10	4	3	4	3–4	4	3	3	3	—
	5	4–8	4–6	5–6	5	5–7	4–5	4–6	4–5	—
	1	9+	7+	7+	6+	8+	6+	7+	6+	—

Note: Values were obtained by computing differences between every pair of *v*-scale scores and determining frequency distributions and cumulative percentages of the differences.

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Table D.4 *continued*

Ages 9:0–9:11

	Frequency of Difference (Extreme %)	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills
Receptive	16	—	3	3	4	4	3	2	3	3–4
	10	—	4	4	4	5	4	3	4	5
	5	—	5–6	4–5	5–6	6	4–5	4	5–6	6
	1	—	7+	6+	7+	7+	6+	5+	7+	7+
Expressive	16	3	—	2	3	3	2	2	2	3
	10	4	—	3	4	4–5	3	2–3	3	4
	5	5–6	—	4–5	5–7	6–7	4	4	4–6	5–7
	1	7+	—	6+	8+	8+	5+	5+	7+	8+
Written	16	3	2	—	3	3	3	2	3	5
	10	4	3	—	4	4–5	3	3	4	5
	5	4–5	4–5	—	5–6	6–8	4–5	4–5	5–6	6–7
	1	6+	6+	—	7+	9+	6+	6+	7+	8+
Personal	16	4	3	3	—	3	2	2	3	4
	10	4	4	4	—	3	3	3	4	5
	5	5–6	5–7	5–6	—	4–5	3–4	4	4–6	6
	1	7+	8+	7+	—	6+	5+	5+	7+	7+
Domestic	16	4	3	3	3	—	2	2	2	4
	10	5	4–5	4–5	3	—	3	3	3	5
	5	6	6–7	6–8	4–5	—	4	4	4–6	6–7
	1	7+	8+	9+	6+	—	5+	4+	7+	8+
Community	16	3	2	3	2	2	—	2	3	4
	10	4	3	3	3	3	—	2	3	4
	5	4–5	4	4–5	3–4	4	—	3–4	4–5	5–6
	1	6+	5+	6+	5+	5+	—	5+	6+	7+
Interpersonal Relationships	16	2	2	2	2	2	2	—	3	3–4
	10	3	2–3	3	3	3	2	—	3–4	5
	5	4	4	4–5	4	4	3–4	—	5–6	5–6
	1	5+	5+	6+	5+	4+	5+	—	7+	7+
Play and Leisure Time	16	3	2	3	3	2	3	3	—	4
	10	4	3	4	4	3	3	3–4	—	4
	5	5–6	4–6	5–6	4–6	4–6	4–5	5–6	—	5
	1	7+	7+	7+	7+	7+	6+	7+	—	6+
Coping Skills	16	3–4	3	5	4	4	4	3–4	4	—
	10	5	4	5	5	5	4	5	4	—
	5	6	5–7	6–7	6	6–7	5–6	5–6	5	—
	1	7+	8+	8+	7+	8+	7+	7+	6+	—

Note: Values were obtained by computing differences between every pair of *v*-scale scores and determining frequency distributions and cumulative percentages of the differences.

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Table D.4 *continued*

Ages 10:0–10:11

	Frequency of Difference (Extreme %)	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills
Receptive	16	—	3	4	3–4	4	3	3	3	3–4
	10	—	4–5	4	5	5–6	4	3	4	5
	5	—	6–8	5–6	5–6	7	5–6	4–5	5–8	5–7
	1	—	9+	7+	7+	8+	7+	6+	9+	8+
Expressive	16	3	—	3	3	4	2	2	3	3
	10	4–5	—	4	4	5	3	3–4	4	4
	5	6–8	—	4–5	5–6	5–7	4–6	5	5–8	5–8
	1	9+	—	6+	7+	8+	7+	6+	9+	9+
Written	16	4	3	—	3	4	2	3	2–3	3
	10	4	4	—	4	5	3	3	4	4
	5	5–6	4–5	—	5–6	6–7	4–5	4–5	5–8	5–7
	1	7+	6+	—	7+	8+	6+	6+	9+	8+
Personal	16	3–4	3	3	—	3	2	2	2	3
	10	5	4	4	—	4	3	3	3–4	3
	5	5–6	5–6	5–6	—	5–6	4–5	4	5–9	4–6
	1	7+	7+	7+	—	7+	6+	5+	10+	7+
Domestic	16	4	4	4	3	—	2	2	2	2–3
	10	5–6	5	5	4	—	3	3	3–4	4
	5	7	5–7	6–7	5–6	—	4–6	4–6	5–8	5
	1	8+	8+	8+	7+	—	7+	7+	9+	6+
Community	16	3	2	2	2	2	—	2	2	3
	10	4	3	3	3	3	—	3	3–4	4
	5	5–6	4–6	4–5	4–5	4–6	—	3–4	5–6	5–6
	1	7+	7+	6+	6+	7+	—	5+	7+	7+
Interpersonal Relationships	16	3	2	3	2	2	2	—	2	2
	10	3	3–4	3	3	3	3	—	2–3	3
	5	4–5	5	4–5	4	4–6	3–4	—	4–8	4–5
	1	6+	6+	6+	5+	7+	5+	—	9+	6+
Play and Leisure Time	16	3	3	2–3	2	2	2	2	—	3
	10	4	4	4	3–4	3–4	3–4	2–3	—	4–5
	5	5–8	5–8	5–8	5–9	5–8	5–6	4–8	—	6
	1	9+	9+	9+	10+	9+	7+	9+	—	7+
Coping Skills	16	3–4	3	3	3	2–3	3	2	3	—
	10	5	4	4	3	4	4	3	4–5	—
	5	5–7	5–8	5–7	4–6	5	5–6	4–5	6	—
	1	8+	9+	8+	7+	6+	7+	6+	7+	—

Note: Values were obtained by computing differences between every pair of *v*-scale scores and determining frequency distributions and cumulative percentages of the differences

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Table D.4 *continued*

Ages 11:0–11:11

	Frequency of Difference (Extreme %)	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills
Receptive	16	—	2	2	4	3	3	2	2	3
	10	—	3	3–4	4	4	4–5	3	3–4	4
	5	—	3–5	5	5–8	5–7	6	4–6	5–7	5–6
	1	—	6+	6+	9+	8+	7+	7+	8+	7+
Expressive	16	2	—	2	3	3	2	2	2	3
	10	3	—	2–3	4	4	3	3	3	4
	5	3–5	—	4–5	5	4–5	4–6	3–4	4	4
	1	6+	—	6+	6+	6+	7+	5+	5+	5+
Written	16	2	2	—	3	3	3	3	3	4
	10	3–4	2–3	—	3–5	4	3	3–4	4	5
	5	5	4–5	—	6	5–6	4–6	5	4–6	6–7
	1	6+	6+	—	7+	7+	7+	6+	7+	8+
Personal	16	4	3	3	—	2	2	2	2	3
	10	4	4	3–5	—	3	3	3	3–4	4
	5	5–8	5	6	—	4	4–6	4	5–7	5
	1	9+	6+	7+	—	5+	7+	5+	8+	6+
Domestic	16	3	3	3	2	—	2	2	2–3	3
	10	4	4	4	3	—	3–4	3	4	4
	5	5–7	4–5	5–6	4	—	5–7	4–5	5–7	5–6
	1	8+	6+	7+	5+	—	8+	6+	8+	7+
Community	16	3	2	3	2	2	—	2	2	3
	10	4–5	3	3	3	3–4	—	2	3	4
	5	6	4–6	4–6	4–6	5–7	—	3–4	4–5	4–5
	1	7+	7+	7+	7+	8+	—	5+	6+	6+
Interpersonal Relationships	16	2	2	3	2	2	2	—	2	2
	10	3	3	3–4	3	3	2	—	3	3
	5	4–6	3–4	5	4	4–5	3–4	—	4–5	4–5
	1	7+	5+	6+	5+	6+	5+	—	6+	6+
Play and Leisure Time	16	2	2	3	2	2–3	2	2	—	4
	10	3–4	3	4	3–4	4	3	3	—	4
	5	5–7	4	4–6	5–7	5–7	4–5	4–5	—	5–6
	1	8+	5+	7+	8+	8+	6+	6+	—	7+
Coping Skills	16	3	3	4	3	3	3	2	4	—
	10	4	4	5	4	4	4	3	4	—
	5	5–6	4	6–7	5	5–6	4–5	4–5	5–6	—
	1	7+	5+	8+	6+	7+	6+	6+	7+	—

Note: Values were obtained by computing differences between every pair of *v*-scale scores and determining frequency distributions and cumulative percentages of the differences.

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Table D.4 *continued*

Ages 12:0–13:11

	Frequency of Difference (Extreme %)	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills
Receptive	16	—	2	3	4	4	3	2	3	4
	10	—	3	4	5	4	4–5	3–4	4	5
	5	—	4–5	5–6	6–8	5–8	6–7	5	5–6	5–6
	1	—	6+	7+	9+	9+	8+	6+	7+	7+
Expressive	16	2	—	2	3	3	2	2	2	3
	10	3	—	3	4	3	3	3	3	4–5
	5	4–5	—	4–5	5	4–7	4–6	4–6	4–7	6
	1	6+	—	6+	6+	8+	7+	7+	8+	7+
Written	16	3	2	—	3	3	2	3	3	4
	10	4	3	—	4	4	3	3	3	4
	5	5–6	4–5	—	5–6	5–6	4–5	4–5	4–5	5–6
	1	7+	6+	—	7+	7+	6+	6+	6+	7+
Personal	16	4	3	3	—	2–3	2	2	3	3
	10	5	4	4	—	4	3	3	3	4
	5	6–8	5	5–6	—	5–6	4	4–6	4–5	5–7
	1	9+	6+	7+	—	7+	5+	7+	6+	8+
Domestic	16	4	3	3	2–3	—	2	2	2	3
	10	4	3	4	4	—	3	3	3–4	4
	5	5–8	4–7	5–6	5–6	—	4	4–5	5	5–6
	1	9+	8+	7+	7+	—	5+	6+	6+	7+
Community	16	3	2	2	2	2	—	2	2	3
	10	4–5	3	3	3	3	—	3	3	4
	5	6–7	4–6	4–5	4	4	—	4–5	4–5	5–6
	1	8+	7+	6+	5+	5+	—	6+	6+	7+
Interpersonal Relationships	16	2	2	3	2	2	2	—	2	3
	10	3–4	3	3	3	3	3	—	3–4	4
	5	5	4–6	4–5	4–6	4–5	4–5	—	5	5–6
	1	6+	7+	6+	7+	6+	6+	—	6+	7+
Play and Leisure Time	16	3	2	3	3	2	2	2	—	4
	10	4	3	3	3	3–4	3	3–4	—	4
	5	5–6	4–7	4–5	4–5	5	4–5	5	—	5–6
	1	7+	8+	6+	6+	6+	6+	6+	—	7+
Coping Skills	16	4	3	4	3	3	3	3	4	—
	10	5	4–5	4	4	4	4	4	4	—
	5	5–6	6	5–6	5–7	5–6	5–6	5–6	5–6	—
	1	7+	7+	7+	8+	7+	7+	7+	7+	—

Note: Values were obtained by computing differences between every pair of *v*-scale scores and determining frequency distributions and cumulative percentages of the differences.

continued on next page

Table D.4 *continued*

Ages 14:0–15:11

	Frequency of Difference (Extreme %)	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills
Receptive	16	—	3	2	3	3	3	3	2–3	4
	10	—	4	2–3	4	4	4	4	4–5	4
	5	—	5–6	4	5–6	5–6	5–6	5	6–7	5–7
	1	—	7+	5+	7+	7+	7+	6+	8+	8+
Expressive	16	3	—	1	2	2	2	3	2	3
	10	4	—	2	3	3–4	3	4	3–4	3
	5	5–6	—	3–4	4–5	5–6	4	4–6	5–6	4–6
	1	7+	—	5+	6+	7+	5+	7+	7+	7+
Written	16	2	1	—	3	4	3	3	3	4
	10	2–3	2	—	4	5	3–4	4–5	4	4–5
	5	4	3–4	—	5–6	6	5–6	6–7	5–6	6–7
	1	5+	5+	—	7+	7+	7+	8+	7+	8+
Personal	16	3	2	3	—	3	2	3	4	3
	10	4	3	4	—	4	3	4–5	4–5	4
	5	5–6	4–5	5–6	—	5–6	4–5	6–10	6–7	5–7
	1	7+	6+	7+	—	7+	6+	11+	8+	8+
Domestic	16	3	2	4	3	—	2	3	3	3
	10	4	3–4	5	4	—	3	4	4	4–5
	5	5–6	5–6	6	5–6	—	4–5	5–7	5–6	6–7
	1	7+	7+	7+	7+	—	6+	8+	7+	8+
Community	16	3	2	3	2	2	—	3	3	3
	10	4	3	3–4	3	3	—	4	4	4
	5	5–6	4	5–6	4–5	4–5	—	5–8	5–6	5–6
	1	7+	5+	7+	6+	6+	—	9+	7+	7+
Interpersonal Relationships	16	3	3	3	3	3	3	—	3	3
	10	4	4	4–5	4–5	4	4	—	4	4
	5	5	4–6	6–7	6–10	5–7	5–8	—	4–5	5–6
	1	6+	7+	8+	11+	8+	9+	—	6+	7+
Play and Leisure Time	16	2–3	2	3	4	3	3	3	—	4
	10	4–5	3–4	4	4–5	4	4	4	—	5
	5	6–7	5–6	5–6	6–7	5–6	5–6	4–5	—	5–6
	1	8+	7+	7+	8+	7+	7+	6+	—	7+
Coping Skills	16	4	3	4	3	3	3	3	4	—
	10	4	3	4–5	4	4–5	4	4	5	—
	5	5–7	4–6	6–7	5–7	6–7	5–6	5–6	5–6	—
	1	8+	7+	8+	8+	8+	7+	7+	7+	—

Note: Values were obtained by computing differences between every pair of *v*-scale scores and determining frequency distributions and cumulative percentages of the differences.

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Table D.4 *continued*

Ages 16:0–18:11

	Frequency of Difference (Extreme %)	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills
Receptive	16	—	1–2	2	3	3	4	4	2–3	3
	10	—	3	2	3	3	4	5	4	3
	5	—	3–5	2–4	4–7	4–5	5–6	5–7	4–6	4–5
	1	—	6+	5+	8+	6+	7+	8+	7+	6+
Expressive	16	1–2	—	1	2	2	3	3	1–3	2
	10	3	—	2	3	2–3	4	4–5	4	3
	5	3–5	—	3–4	3–5	4–5	5	6–7	5	3–6
	1	6+	—	5+	6+	6+	6+	8+	5+	7+
Written	16	2	1	—	3	3	4	4	4	3
	10	2	2	—	4	3–4	5	5	5	4–5
	5	2–4	3–4	—	4–6	5–6	6	6	6	6–7
	1	5+	5+	—	7+	7+	7+	7+	7+	8+
Personal	16	3	2	3	—	3	4	5	4	4
	10	3	3	4	—	4	4–5	6	5	4
	5	4–7	3–5	4–6	—	5	6–8	7–9	6–7	5
	1	8+	6+	7+	—	6+	9+	10+	8+	6+
Domestic	16	3	2	3	3	—	4	5	4	3
	10	3	2–3	3–4	4	—	4	5–6	5	4
	5	4–5	4–5	5–6	5	—	5	7	5–6	5–6
	1	6+	6+	7+	6+	—	6+	8+	7+	7+
Community	16	4	3	4	4	4	—	4	3	3
	10	4	4	5	4–5	4	—	5	4	3
	5	5–6	5	6	6–8	5	—	5–6	4–6	4
	1	7+	6+	7+	9+	6+	—	7+	7+	5+
Interpersonal Relationships	16	4	3	4	5	5	4	—	3	2–3
	10	5	4–5	5	6	5–6	5	—	3	4
	5	5–7	6–7	6	7–9	7	5–6	—	4	5–7
	1	8+	8+	7+	10+	8+	7+	—	5+	8+
Play and Leisure Time	16	2–3	1–3	4	4	4	3	3	—	2–3
	10	4	4	5	5	5	4	3	—	4
	5	4–6	5	6	6–7	5–6	4–6	4	—	4–5
	1	7+	5+	7+	8+	7+	7+	5+	—	6+
Coping Skills	16	3	2	3	4	3	3	2–3	2–3	—
	10	3	3	4–5	4	4	3	4	4	—
	5	4–5	3–6	6–7	5	5–6	4	5–7	4–5	—
	1	6+	7+	8+	6+	7+	5+	8+	6+	—

Note: Values were obtained by computing differences between every pair of *v*-scale scores and determining frequency distributions and cumulative percentages of the differences.

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Table D.4 *continued*

Ages 19:0–21:11

	Frequency of Difference (Extreme %)	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills
Receptive	16	—	1	2	2	3	3	2	3	2
	10	—	1–2	2	2–3	3–4	3–4	2–3	3	2–3
	5	—	3–4	2–5	4–5	5–6	5	4–5	4	4
	1	—	5+	6+	6+	7+	5+	6+	5+	5+
Expressive	16	1	—	1	1	2	2	1	3	1–2
	10	1–2	—	2	1–3	2	2	1–3	3–4	3
	5	3–4	—	3–4	4	2–6	3–4	4–6	5	4–5
	1	5+	—	5+	5+	7+	5+	7+	6+	6+
Written	16	2	1	—	2	3	3	3	2–3	2
	10	2	2	—	3	4	4	4	4	3
	5	2–5	3–4	—	3–5	5	4–5	5–7	5–6	3–7
	1	6+	5+	—	6+	6+	6+	8+	7+	8+
Personal	16	2	1	2	—	2	2	3	3	3
	10	2–3	1–3	3	—	3	3	4	4	4
	5	4–5	4	3–5	—	4–6	4–5	5	5	4–5
	1	6+	5+	6+	—	7+	6+	6+	5+	6+
Domestic	16	3	2	3	2	—	3	3	3–4	3
	10	3–4	2	4	3	—	4	4–5	5	3
	5	5–6	2–6	5	4–6	—	5–6	6	6	4–6
	1	7+	7+	6+	7+	—	7+	7+	6+	7+
Community	16	3	2	3	2	3	—	3	3	2
	10	3–4	2	4	3	4	—	4	3–4	3
	5	5	3–4	4–5	4–5	5–6	—	5–6	5	4–5
	1	5+	5+	6+	6+	7+	—	7+	5+	6+
Interpersonal Relationships	16	2	1	3	3	3	3	—	3	3
	10	2–3	1–3	4	4	4–5	4	—	4	4
	5	4–5	4–6	5–7	5	6	5–6	—	4–6	5
	1	6+	7+	8+	6+	7+	7+	—	7+	6+
Play and Leisure Time	16	3	3	2–3	3	3–4	3	3	—	1
	10	3	3–4	4	4	5	4	4	—	1
	5	4	5	5–6	5	6	5	4–6	—	1–7
	1	5+	6+	7+	5+	6+	5+	7+	—	8+
Coping Skills	16	2	1–2	2	3	3	2	3	1	—
	10	2–3	3	3	4	3	3	4	1	—
	5	4	4–5	3–7	4–5	4–6	4–5	5	1–7	—
	1	5+	6+	8+	6+	7+	6+	6+	8+	—

Note: Values were obtained by computing differences between every pair of *v*-scale scores and determining frequency distributions and cumulative percentages of the differences.

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Table D.4 *continued*

Ages 22:0–31:11

	Frequency of Difference (Extreme %)	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills
Receptive	16	—	1	1	1	1	2	1	1	2
	10	—	1	1	1–2	1	2	1	1–2	2
	5	—	2–4	1–2	3–4	1–4	2–5	2–4	3–4	2–5
	1	—	5+	3+	5+	5+	6+	5+	5+	6+
Expressive	16	1	—	—	—	—	1	—	—	1
	10	1	—	—	—	1–2	1	1–2	1–2	1
	5	2–4	—	1–2	1–3	3–5	1–3	3–5	3	1–3
	1	5+	—	3+	4+	6+	4+	6+	4+	4+
Written	16	1	—	—	2	3	3	3	4	3
	10	1	—	—	3	4	4	4	4	4
	5	1–2	1–2	—	4	4	5	4	5	5
	1	3+	3+	—	5+	5+	6+	5+	6+	6+
Personal	16	1	—	2	—	2	2	2	3	1–2
	10	1–2	—	3	—	3	3	3–4	4	3
	5	3–4	1–3	4	—	4	4–5	5	5–6	4–6
	1	5+	4+	5+	—	5+	6+	6+	7+	7+
Domestic	16	1	—	3	2	—	2–4	3	3	1–3
	10	1	1–2	4	3	—	5	3	4	4
	5	1–4	3–5	4	4	—	6	4	5–6	5
	1	5+	6+	5+	5+	—	7+	5+	7+	6+
Community	16	2	1	3	2	2–4	—	3	3	1–2
	10	2	1	4	3	5	—	4	4	3
	5	2–5	1–3	5	4–5	6	—	5	5–6	4–5
	1	6+	4+	6+	6+	7+	—	6+	7+	6+
Interpersonal Relationships	16	1	—	3	2	3	3	—	3	2
	10	1	1–2	4	3–4	3	4	—	3–5	3–4
	5	2–4	3–5	4	5	4	5	—	6–7	5–6
	1	5+	6+	5+	6+	5+	6+	—	8+	7+
Play and Leisure Time	16	1	—	4	3	3	3	3	—	1
	10	1–2	1–2	4	4	4	4	3–5	—	1
	5	3–4	3	5	5–6	5–6	5–6	6–7	—	2–7
	1	5+	4+	6+	7+	7+	7+	8+	—	8+
Coping Skills	16	2	1	3	1–2	1–3	1–2	2	1	—
	10	2	1	4	3	4	3	3–4	1	—
	5	2–5	1–3	5	4–6	5	4–5	5–6	2–7	—
	1	6+	4+	6+	7+	6+	6+	7+	8+	—

Note: Values were obtained by computing differences between every pair of *v*-scale scores and determining frequency distributions and cumulative percentages of the differences.

continued on next page

Table D.4 *continued*

Ages 32:0–51:11

	Frequency of Difference (Extreme %)	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills
Receptive	16	—	—	—	—	—	1	1–3	—	1–3
	10	—	1–5	1–3	1–5	1–5	2–3	4–5	1–3	4–5
	5	—	6	4–5	6	6	4–5	6	4–5	6
	1	—	6+	6+	6+	6+	6+	6+	6+	6+
Expressive	16	—	—	—	—	—	—	—	—	—
	10	1–5	—	—	1–3	1–3	1–3	1	1–3	1–3
	5	6	—	1–3	4–5	4–5	4–5	2–6	4–6	4–5
	1	6+	—	4+	6+	6+	6+	7+	7+	6+
Written	16	—	—	—	3	3	1–2	2	3	3
	10	1–3	—	—	4	4	3	3–4	4	4
	5	4–5	1–3	—	5	5	4	5	5	5
	1	6+	4+	—	6+	6+	5+	6+	6+	6+
Personal	16	—	—	3	—	1–3	1	1	2–3	2
	10	1–5	1–3	4	—	4	2–3	2–3	4	3
	5	6	4–5	5	—	5	4	4–5	5	4
	1	6+	6+	6+	—	6+	4+	6+	6+	5+
Domestic	16	—	—	3	1–3	—	1–2	3	3	3
	10	1–5	1–3	4	4	—	3	3–5	3	3
	5	6	4–5	5	5	—	4–5	6–7	4–8	4–8
	1	6+	6+	6+	6+	—	6+	8+	9+	9+
Community	16	1	—	1–2	1	1–2	—	3	3	3
	10	2–3	1–3	3	2–3	3	—	3	4	3
	5	4–5	4–5	4	4	4–5	—	4–6	5–6	4
	1	6+	6+	5+	4+	6+	—	7+	7+	5+
Interpersonal Relationships	16	1–3	—	2	1	3	3	—	3–4	2
	10	4–5	1	3–4	2–3	3–5	3	—	5	3–4
	5	6	2–6	5	4–5	6–7	4–6	—	5	5
	1	6+	7+	6+	6+	8+	7+	—	6+	5+
Play and Leisure Time	16	—	—	3	2–3	3	3	3–4	—	1–2
	10	1–3	1–3	4	4	3	4	5	—	3–4
	5	4–5	4–6	5	5	4–8	5–6	5	—	5–6
	1	6+	7+	6+	6+	9+	7+	6+	—	7+
Coping Skills	16	1–3	—	3	2	3	3	2	1–2	—
	10	4–5	1–3	4	3	3	3	3–4	3–4	—
	5	6	4–5	5	4	4–8	4	5	5–6	—
	1	6+	6+	6+	5+	9+	5+	5+	7+	—

Note: Values were obtained by computing differences between every pair of *v*-scale scores and determining frequency distributions and cumulative percentages of the differences.

continued on next page

Table D.4 *continued*

Ages 52:0–71:11

	Frequency of Difference (Extreme %)	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross[a]	Fine[a]
Receptive	16	—	1–3	1	1–3	1–3	1–3	1–3	1	—	2	1
	10	—	4–5	2–5	4–5	4–5	4–5	4	2–4	1–3	2–4	2–4
	5	—	6	6	6	6	6	4–5	5–6	4–5	5–6	5–6
	1	—	7+	7+	7+	6+	7+	6+	7+	6+	7+	7+
Expressive	16	1–3	—	—	—	1	—	—	—	—	1	—
	10	4–5	—	1	1	2	—	1–2	1–2	1–2	2–4	1
	5	6	—	2–6	2–5	3–5	1–7	3–5	3–5	3–7	5–7	2–6
	1	7+	—	7+	6+	6+	8+	6+	6+	8+	8+	7+
Written	16	1	—	—	1–2	1–3	2–3	1–2	3	1–2	3	1–2
	10	2–5	1	—	3–4	4–5	4	3	4	3	4	3
	5	6	2–6	—	5–6	6–7	5	4–5	5–6	4–5	5	4–5
	1	7+	7+	—	7+	8+	6+	6+	7+	6+	6+	6+
Personal	16	1–3	—	1–2	—	1–2	3	2	1–2	2	3	2–3
	10	4–5	1	3–4	—	3–4	4	3–4	3	3–4	4	4
	5	6	2–5	5–6	—	5	5	5	4–6	5–6	5	4–5
	1	7+	6+	7+	—	6+	5+	5+	7+	7+	5+	6+
Domestic	16	1–3	1	1–3	1–2	—	3	1–3	1–2	1–2	2	1–2
	10	4–5	2	4–5	3–4	—	4	4	3	3	3	3
	5	6	3–5	6–7	5	—	5	5–6	4–6	4–5	4–6	4–5
	1	6+	6+	8+	6+	—	6+	7+	7+	6+	7+	6+
Community	16	1–3	—	2–3	3	3	—	—	1	—	2	1
	10	4–5	—	4	4	4	—	1–3	2–4	1	3–4	2
	5	6	1–7	5	5	5	—	4	5	2–4	5–6	3–4
	1	7+	8+	6+	5+	6+	—	5+	6+	5+	7+	5+
Interpersonal Relationships	16	1–3	—	1–2	2	1–3	—	—	3	3	3	3
	10	4	1–2	3	3–4	4	1–3	—	4	3–4	4	4
	5	4–5	3–5	4–5	5	5–6	4	—	5–6	5	5–6	4–5
	1	6+	6+	6+	5+	7+	5+	—	7+	6+	7+	6+
Play and Leisure Time	16	1	—	3	1–2	1–2	1	3	—	2	2–3	1–2
	10	2–4	1–2	4	3	3	2–4	4	—	3	4	3–4
	5	5–6	3–5	5–6	4–6	4–6	5	5–6	—	4–5	4–6	5
	1	7+	6+	7+	7+	7+	6+	7+	—	6+	7+	6+
Coping Skills	16	—	—	1–2	2	1–2	—	3	2	—	2	1
	10	1–3	1–2	3	3–4	3	1	3–4	3	—	3	2
	5	4–5	3–7	4–5	5–6	4–5	2–4	5	4–5	—	4	3–4
	1	6+	8+	6+	7+	6+	5+	6+	6+	—	5+	5+
Gross[a]	16	2	1	3	3	2	2	3	2–3	2	—	1
	10	2–4	2–4	4	4	3	3–4	4	4	3	—	2–3
	5	5–6	5–7	5	5	4–6	5–6	5–6	4–6	4	—	4–8
	1	7+	8+	6+	5+	7+	7+	7+	7+	5+	—	9+
Fine[a]	16	1	—	1–2	2–3	1–2	1	3	1–2	1	1	—
	10	2–4	1	3	4	3	2	4	3–4	2	2–3	—
	5	5–6	2–6	4–5	4–5	4–5	3–4	4–5	5	3–4	4–8	—
	1	7+	7+	6+	6+	6+	5+	6+	6+	5+	9+	—

Note: Values were obtained by computing differences between every pair of *v*-scale scores and determining frequency distributions and cumulative percentages of the differences.

[a] Includes ages 50–51

continued on next page

Table D.4 *continued*

Ages 72:0–90:11

	Frequency of Difference (Extreme %)	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine
Receptive	16	—	—	1	—	1	2–3	2	2	1–3	2	2–4
	10	—	1	2–4	1–3	2–4	4	2–4	3–4	4	2–5	5
	5	—	1–3	5	4	5	4	5	5	4	6	5
	1	—	4+	5+	4+	6+	5+	6+	6+	5+	6+	6+
Expressive	16	—	—	2–3	1–2	1–2	3	2	2	3	2–3	2–3
	10	1	—	4	3	3–4	4	2–4	3–4	4	4–5	4
	5	1–3	—	5	4	5	4	5–6	5–6	4	6	5
	1	4+	—	5+	4+	5+	4+	7+	7+	4+	7+	5+
Written	16	1	2–3	—	1–2	3	2	3	1–2	2	2–3	1–2
	10	2–4	4	—	3	4	3	4	3–4	3	4	3–4
	5	5	5	—	4	5	4	5–8	5–8	4	5	5
	1	5+	5+	—	4+	5+	5+	9+	9+	4+	6+	5+
Personal	16	—	1–2	1–2	—	1	2	2–3	1	1–3	2	2
	10	1–3	3	3	—	2–4	3	4	2	4	2–5	3–4
	5	4	4	4	—	5	4	5–7	3–4	4	6	5
	1	4+	4+	4+	—	5+	4+	8+	5+	5+	7+	5+
Domestic	16	1	1–2	3	1	—	3	3	3	3	4	3
	10	2–4	3–4	4	2–4	—	3	4	4	3	4	3–4
	5	5	5	5	5	—	4	5	4	4	5–7	5
	1	6+	5+	5+	5+	—	4+	5+	5+	4+	8+	5+
Community	16	2–3	3	2	2	3	—	1–2	1	1	2–3	1–2
	10	4	4	3	3	3	—	3	2–3	2	4	3
	5	4	4	4	4	4	—	4–5	4–5	2–5	4	4–6
	1	5+	4+	5+	4+	4+	—	6+	6+	6+	5+	7+
Interpersonal Relationships	16	2	2	3	2–3	3	1–2	—	3	2	3	3
	10	2–4	2–4	4	4	4	3	—	3	3–4	4	3–4
	5	5	5–6	5–8	5–7	5	4–5	—	4–5	5–8	5–6	5–9
	1	6+	7+	9+	8+	5+	6+	—	6+	9+	7+	10+
Play and Leisure Time	16	2	2	1–2	1	3	1	3	—	2	1–2	1
	10	3–4	3–4	3–4	2	4	2–3	3	—	3	3–4	2–3
	5	5	5–6	5–8	3–4	4	4–5	4–5	—	4–5	5	4–6
	1	6+	7+	9+	5+	5+	6+	6+	—	6+	6+	7+
Coping Skills	16	1–3	3	2	1–3	3	1	2	2	—	2	1–2
	10	4	4	3	4	3	2	3–4	3	—	3	3–4
	5	4	4	4	4	4	2–5	5–8	4–5	—	4–5	5
	1	5+	4+	4+	5+	4+	6+	9+	6+	—	6+	6+
Gross	16	2	2–3	2–3	2	4	2–3	3	1–2	2	—	3
	10	2–5	4–5	4	2–5	4	4	4	3–4	3	—	4
	5	6	6	5	6	5–7	4	5–6	5	4–5	—	5–6
	1	6+	7+	6+	7+	8+	5+	7+	6+	6+	—	7+
Fine	16	2–4	2–3	1–2	2	3	1–2	3	1	1–2	3	—
	10	5	4	3–4	3–4	3–4	3	3–4	2–3	3–4	4	—
	5	5	5	5	5	5	4–6	5–9	4–6	5	5–6	—
	1	6+	5+	5+	5+	5+	7+	10+	7+	6+	7+	—

Note: Values were obtained by computing differences between every pair of *v*-scale scores and determining frequency distributions and cumulative percentages of the differences.

Table D.5 Pairwise Comparisons: Values Needed for Statistical Significance at .05 and .01 Levels, Using the Bonferroni Correction, when Comparing Each Subdomain *v*-Scale Score with the *v*-Scale Score of Every Other Subdomain

Ages 0:0–0:11

	Communication			Daily Living Skills			Socialization			Motor Skills	
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine
	v-Scale Score Difference Required for Significance										
Receptive	—	5	—	6	—	—	5	6	—	5	5
Expressive	6	—	—	5	—	—	4	4	—	3	4
Written	—	—	—	—	—	—	—	—	—	—	—
Personal	7	6	—	—	—	—	5	5	—	4	5
Domestic	—	—	—	—	—	—	—	—	—	—	—
Community	—	—	—	—	—	—	—	—	—	—	—
Interpersonal Relationships	6	5	—	6	—	—	—	5	—	4	4
Play and Leisure Time	7	5	—	6	—	—	6	—	—	4	5
Coping Skills	—	—	—	—	—	—	—	—	—	—	—
Gross	6	4	—	5	—	—	5	5	—	—	4
Fine	6	5	—	6	—	—	5	6	—	5	—

Differences of .003 significance presented above diagonal; differences of .0007 significance presented below diagonal
Note: Values were obtained by using the Difference Score formula, Sattler (2001, p. 301), and were rounded to integers.

Ages 1:0–1:11

	Communication			Daily Living Skills			Socialization			Motor Skills	
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine
	v-Scale Score Difference Required for Significance										
Receptive	—	3	—	4	5	6	4	4	6	4	4
Expressive	4	—	—	3	4	5	3	4	5	3	4
Written	—	—	—	—	—	—	—	—	—	—	—
Personal	5	4	—	—	5	6	4	4	6	4	4
Domestic	6	5	—	6	—	6	5	5	6	4	5
Community	7	6	—	7	7	—	6	6	7	5	6
Interpersonal Relationships	5	4	—	5	6	7	—	4	6	4	4
Play and Leisure Time	5	5	—	5	6	7	5	—	6	4	5
Coping Skills	7	6	—	7	7	8	7	7	—	5	6
Gross	5	4	—	5	5	6	5	5	6	—	4
Fine	5	5	—	5	6	7	5	6	7	5	—

Differences of .003 significance presented above diagonal; differences of .0007 significance presented below diagonal
Note: Values were obtained by using the Difference Score formula, Sattler (2001, p. 301), and were rounded to integers.

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Table D.5 *continued*

Ages 2:0–2:11

	Communication			Daily Living Skills			Socialization			Motor Skills	
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine
	v-Scale Score Difference Required for Significance										
Receptive	—	4	—	5	6	6	5	5	5	5	5
Expressive	5	—	—	4	5	5	3	4	4	3	4
Written	—	—	—	—	—	—	—	—	—	—	—
Personal	6	5	—	—	6	5	5	5	5	4	5
Domestic	7	6	—	7	—	6	6	6	6	5	6
Community	7	6	—	6	7	—	5	6	5	5	6
Interpersonal Relationships	6	4	—	6	7	6	—	5	4	4	5
Play and Leisure Time	6	5	—	6	7	7	6	—	5	5	5
Coping Skills	6	5	—	6	7	6	5	6	—	4	5
Gross	6	4	—	5	6	6	5	6	5	—	5
Fine	6	5	—	6	7	7	6	6	6	6	—

Differences of .003 significance presented above diagonal; differences of .0007 significance presented below diagonal
Note: Values were obtained by using the Difference Score formula, Sattler (2001, p. 301), and were rounded to integers.

Ages 3:0–3:11

	Communication			Daily Living Skills			Socialization			Motor Skills	
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine
	v-Scale Score Difference Required for Significance										
Receptive	—	5	6	5	6	6	5	5	5	5	5
Expressive	6	—	5	4	5	5	4	4	3	4	4
Written	7	6	—	6	7	7	6	6	6	6	6
Personal	6	5	7	—	6	5	5	5	4	5	5
Domestic	7	6	8	7	—	7	6	6	6	6	6
Community	7	6	8	6	8	—	5	6	5	6	5
Interpersonal Relationships	6	5	7	6	7	6	—	5	4	5	5
Play and Leisure Time	6	5	7	6	7	7	6	—	5	5	5
Coping Skills	6	4	7	5	7	6	5	6	—	5	4
Gross	6	5	7	6	7	7	6	6	6	—	5
Fine	6	5	7	6	7	6	6	6	5	6	—

Differences of .003 significance presented above diagonal; differences of .0007 significance presented below diagonal
Note: Values were obtained by using the Difference Score formula, Sattler (2001, p. 301), and were rounded to integers.

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Table D.5 *continued*

Ages 4:0–4:11

	Communication			Daily Living Skills			Socialization			Motor Skills	
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine
	v-Scale Score Difference Required for Significance										
Receptive	—	5	6	7	6	6	6	6	6	6	6
Expressive	6	—	5	6	5	4	4	5	4	5	4
Written	7	6	—	6	6	5	5	6	5	5	5
Personal	8	7	7	—	6	6	6	7	6	6	6
Domestic	7	6	7	7	—	6	5	6	5	6	5
Community	7	5	6	7	7	—	5	6	5	5	5
Interpersonal Relationships	7	5	6	7	6	6	—	5	5	5	5
Play and Leisure Time	7	6	7	8	7	7	6	—	5	6	5
Coping Skills	7	5	6	7	6	6	6	6	—	5	5
Gross	7	6	6	7	7	6	6	7	6	—	5
Fine	7	5	6	7	6	6	6	6	6	6	—

Differences of .003 significance presented above diagonal; differences of .0007 significance presented below diagonal
Note: Values were obtained by using the Difference Score formula, Sattler (2001, p. 301), and were rounded to integers.

Ages 5:0–5:11

	Communication			Daily Living Skills			Socialization			Motor Skills	
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine
	v-Scale Score Difference Required for Significance										
Receptive	—	5	5	6	6	6	5	6	5	6	6
Expressive	6	—	4	5	4	4	4	5	4	5	5
Written	6	5	—	5	5	5	4	5	4	5	5
Personal	7	6	6	—	6	6	6	6	5	6	6
Domestic	7	5	6	7	—	5	5	5	4	6	5
Community	7	5	6	7	6	—	5	5	4	6	5
Interpersonal Relationships	6	5	5	7	6	6	—	5	4	6	5
Play and Leisure Time	7	6	6	7	6	6	6	—	5	6	6
Coping Skills	6	5	5	6	5	5	5	6	—	5	5
Gross	7	6	6	7	7	7	7	7	6	—	6
Fine	7	6	6	7	6	6	6	7	6	7	—

Differences of .003 significance presented above diagonal; differences of .0007 significance presented below diagonal
Note: Values were obtained by using the Difference Score formula, Sattler (2001, p. 301), and were rounded to integers.

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Table D.5 *continued*

Ages 6:0–6:11

	Communication			Daily Living Skills			Socialization			Motor Skills	
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine
	v-Scale Score Difference Required for Significance										
Receptive	—	6	5	6	6	5	5	6	5	6	6
Expressive	7	—	4	6	5	4	4	5	4	5	5
Written	6	5	—	5	5	4	4	5	4	4	5
Personal	7	7	6	—	6	5	5	6	5	6	6
Domestic	7	6	6	7	—	4	5	5	4	5	5
Community	6	5	5	6	5	—	4	5	4	4	5
Interpersonal Relationships	6	5	5	6	6	5	—	5	4	4	5
Play and Leisure Time	7	6	6	7	6	6	6	—	5	5	5
Coping Skills	6	5	5	6	5	5	5	6	—	4	4
Gross	7	6	5	7	6	5	5	6	5	—	5
Fine	7	6	6	7	6	6	6	6	5	6	—

Differences of .003 significance presented above diagonal; differences of .0007 significance presented below diagonal

Note: Values were obtained by using the Difference Score formula, Sattler (2001, p. 301), and were rounded to integers.

Ages 7:0–7:11

	Communication			Daily Living Skills			Socialization			Motor Skills[a]	
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine
	v-Scale Score Difference Required for Significance										
Receptive	—	5	5	6	5	5	5	6	5	—	—
Expressive	6	—	5	5	5	4	4	5	4	—	—
Written	6	6	—	5	5	5	5	6	5	—	—
Personal	7	6	6	—	5	5	5	6	5	—	—
Domestic	6	6	6	6	—	5	5	6	5	—	—
Community	6	5	6	6	6	—	4	5	4	—	—
Interpersonal Relationships	6	5	6	6	6	5	—	5	4	—	—
Play and Leisure Time	7	6	7	7	7	6	6	—	5	—	—
Coping Skills	6	5	6	6	6	5	5	6	—	—	—
Gross	—	—	—	—	—	—	—	—	—	—	—
Fine	—	—	—	—	—	—	—	—	—	—	—

Differences of .003 significance presented above diagonal; differences of .0007 significance presented below diagonal

Note: Values were obtained by using the Difference Score formula, Sattler (2001, p. 301), and were rounded to integers.

[a] Administration of the Motor Skills Domain is optional for individuals aged 7–49. If this domain was administered for an individual aged 7–49 and an estimated standard score was obtained, do not use Motor Skills in the comparisons.

continued on next page

Table D.5 *continued*

Ages 8:0–8:11

	Communication			Daily Living Skills			Socialization			Motor Skills[a]	
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine
	v-Scale Score Difference Required for Significance										
Receptive	—	6	5	6	5	5	5	6	5	—	—
Expressive	7	—	5	6	5	5	5	6	5	—	—
Written	6	6	—	6	5	5	5	6	4	—	—
Personal	7	7	7	—	6	5	5	6	5	—	—
Domestic	6	6	6	7	—	5	5	6	5	—	—
Community	6	6	6	6	6	—	5	5	4	—	—
Interpersonal Relationships	6	6	6	6	6	6	—	5	4	—	—
Play and Leisure Time	7	7	7	7	7	6	6	—	5	—	—
Coping Skills	6	6	5	6	6	5	5	6	—	—	—
Gross	—	—	—	—	—	—	—	—	—	—	—
Fine	—	—	—	—	—	—	—	—	—	—	—

Differences of .003 significance presented above diagonal; differences of .0007 significance presented below diagonal

Note: Values were obtained by using the Difference Score formula, Sattler (2001, p. 301), and were rounded to integers.

[a] Administration of the Motor Skills Domain is optional for individuals aged 7–49. If this domain was administered for an individual aged 7–49 and an estimated standard score was obtained, do not use Motor Skills in the comparisons.

Ages 9:0–9:11

	Communication			Daily Living Skills			Socialization			Motor Skills[a]	
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine
	v-Scale Score Difference Required for Significance										
Receptive	—	5	5	6	5	5	5	6	5	—	—
Expressive	6	—	5	6	5	5	5	6	5	—	—
Written	6	6	—	6	5	5	5	6	5	—	—
Personal	7	7	7	—	6	6	6	7	6	—	—
Domestic	6	6	6	7	—	5	5	6	5	—	—
Community	6	6	6	7	6	—	5	6	5	—	—
Interpersonal Relationships	6	6	6	7	6	6	—	6	5	—	—
Play and Leisure Time	7	7	7	8	7	7	7	—	6	—	—
Coping Skills	6	6	6	7	6	6	6	7	—	—	—
Gross	—	—	—	—	—	—	—	—	—	—	—
Fine	—	—	—	—	—	—	—	—	—	—	—

Differences of .003 significance presented above diagonal; differences of .0007 significance presented below diagonal

Note: Values were obtained by using the Difference Score formula, Sattler (2001, p. 301), and were rounded to integers.

[a] Administration of the Motor Skills Domain is optional for individuals aged 7–49. If this domain was administered for an individual aged 7–49 and an estimated standard score was obtained, do not use Motor Skills in the comparisons.

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Table D.5 *continued*

Ages 10:0–10:11

	Communication			Daily Living Skills			Socialization			Motor Skills[a]	
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine
	v-Scale Score Difference Required for Significance										
Receptive	—	6	6	7	6	6	6	6	6	—	—
Expressive	7	—	5	6	5	5	5	6	5	—	—
Written	7	6	—	6	5	5	5	6	5	—	—
Personal	8	7	7	—	6	6	6	7	6	—	—
Domestic	7	6	6	7	—	5	5	6	5	—	—
Community	7	6	6	7	6	—	5	6	5	—	—
Interpersonal Relationships	7	6	6	7	6	6	—	6	5	—	—
Play and Leisure Time	7	7	7	8	7	7	7	—	6	—	—
Coping Skills	7	6	6	7	6	6	6	7	—	—	—
Gross	—	—	—	—	—	—	—	—	—	—	—
Fine	—	—	—	—	—	—	—	—	—	—	—

Differences of .003 significance presented above diagonal; differences of .0007 significance presented below diagonal

Note: Values were obtained by using the Difference Score formula, Sattler (2001, p. 301), and were rounded to integers.

[a] Administration of the Motor Skills Domain is optional for individuals aged 7–49. If this domain was administered for an individual aged 7–49 and an estimated standard score was obtained, do not use Motor Skills in the comparisons.

Ages 11:0–11:11

	Communication			Daily Living Skills			Socialization			Motor Skills[a]	
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine
	v-Scale Score Difference Required for Significance										
Receptive	—	5	5	7	5	6	5	6	6	—	—
Expressive	6	—	5	6	5	5	5	6	5	—	—
Written	6	6	—	6	5	6	5	6	5	—	—
Personal	8	7	7	—	6	7	6	7	6	—	—
Domestic	6	6	6	7	—	6	5	6	5	—	—
Community	7	6	7	8	7	—	6	7	6	—	—
Interpersonal Relationships	6	6	6	7	6	7	—	6	5	—	—
Play and Leisure Time	7	7	7	8	7	8	7	—	6	—	—
Coping Skills	7	6	6	7	6	7	6	7	—	—	—
Gross	—	—	—	—	—	—	—	—	—	—	—
Fine	—	—	—	—	—	—	—	—	—	—	—

Differences of .003 significance presented above diagonal; differences of .0007 significance presented below diagonal

Note: Values were obtained by using the Difference Score formula, Sattler (2001, p. 301), and were rounded to integers.

[a] Administration of the Motor Skills Domain is optional for individuals aged 7–49. If this domain was administered for an individual aged 7–49 and an estimated standard score was obtained, do not use Motor Skills in the comparisons.

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Table D.5 *continued*

Ages 12:0–13:11

	Communication			Daily Living Skills			Socialization			Motor Skills[a]	
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine
	v-Scale Score Difference Required for Significance										
Receptive	—	5	5	6	5	5	5	6	5	—	—
Expressive	6	—	5	6	5	5	4	6	5	—	—
Written	6	6	—	6	5	5	5	6	5	—	—
Personal	7	7	7	—	6	6	6	7	7	—	—
Domestic	6	6	6	7	—	5	5	6	5	—	—
Community	6	6	6	7	6	—	5	6	6	—	—
Interpersonal Relationships	6	5	6	7	6	6	—	6	5	—	—
Play and Leisure Time	7	7	7	8	7	7	7	—	7	—	—
Coping Skills	6	6	6	8	6	7	6	8	—	—	—
Gross	—	—	—	—	—	—	—	—	—	—	—
Fine	—	—	—	—	—	—	—	—	—	—	—

Differences of .003 significance presented above diagonal; differences of .0007 significance presented below diagonal

Note: Values were obtained by using the Difference Score formula, Sattler (2001, p. 301), and were rounded to integers.

[a] Administration of the Motor Skills Domain is optional for individuals aged 7–49. If this domain was administered for an individual aged 7–49 and an estimated standard score was obtained, do not use Motor Skills in the comparisons.

Ages 14:0–15:11

	Communication			Daily Living Skills			Socialization			Motor Skills[a]	
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine
	v-Scale Score Difference Required for Significance										
Receptive	—	5	5	7	6	6	6	6	6	—	—
Expressive	6	—	5	7	6	6	6	6	6	—	—
Written	6	6	—	7	6	6	6	6	6	—	—
Personal	8	8	8	—	7	7	7	7	7	—	—
Domestic	7	7	7	8	—	6	6	6	6	—	—
Community	7	7	7	8	7	—	6	6	6	—	—
Interpersonal Relationships	7	7	7	8	7	7	—	6	6	—	—
Play and Leisure Time	7	7	7	8	7	7	7	—	6	—	—
Coping Skills	7	7	7	8	7	7	7	7	—	—	—
Gross	—	—	—	—	—	—	—	—	—	—	—
Fine	—	—	—	—	—	—	—	—	—	—	—

Differences of .003 significance presented above diagonal; differences of .0007 significance presented below diagonal

Note: Values were obtained by using the Difference Score formula, Sattler (2001, p. 301), and were rounded to integers.

[a] Administration of the Motor Skills Domain is optional for individuals aged 7–49. If this domain was administered for an individual aged 7–49 and an estimated standard score was obtained, do not use Motor Skills in the comparisons.

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Table D.5 *continued*

Ages 16:0–18:11

	Communication			Daily Living Skills			Socialization			Motor Skills[a]	
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine
	v-Scale Score Difference Required for Significance										
Receptive	—	4	4	6	5	5	5	5	5	—	—
Expressive	5	—	4	6	5	5	5	5	5	—	—
Written	5	5	—	6	5	5	5	5	5	—	—
Personal	7	7	7	—	7	7	7	7	7	—	—
Domestic	6	6	6	8	—	6	6	6	6	—	—
Community	6	6	6	8	7	—	6	6	6	—	—
Interpersonal Relationships	6	6	6	8	7	7	—	6	6	—	—
Play and Leisure Time	6	6	6	8	7	7	7	—	6	—	—
Coping Skills	6	6	6	8	7	7	7	7	—	—	—
Gross	—	—	—	—	—	—	—	—	—	—	—
Fine	—	—	—	—	—	—	—	—	—	—	—

Differences of .003 significance presented above diagonal; differences of .0007 significance presented below diagonal

Note: Values were obtained by using the Difference Score formula, Sattler (2001, p. 301), and were rounded to integers.

[a] Administration of the Motor Skills Domain is optional for individuals aged 7–49. If this domain was administered for an individual aged 7–49 and an estimated standard score was obtained, do not use Motor Skills in the comparisons.

Ages 19:0–21:11

	Communication			Daily Living Skills			Socialization			Motor Skills[a]	
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine
	v-Scale Score Difference Required for Significance										
Receptive	—	3	4	4	4	5	4	5	4	—	—
Expressive	4	—	4	5	5	6	4	5	5	—	—
Written	5	5	—	5	5	6	5	5	5	—	—
Personal	5	6	6	—	6	6	5	6	6	—	—
Domestic	5	6	6	7	—	6	5	6	5	—	—
Community	6	7	7	7	7	—	6	7	6	—	—
Interpersonal Relationships	5	5	6	6	6	7	—	5	5	—	—
Play and Leisure Time	6	6	6	7	7	8	6	—	6	—	—
Coping Skills	5	6	6	7	6	7	6	7	—	—	—
Gross	—	—	—	—	—	—	—	—	—	—	—
Fine	—	—	—	—	—	—	—	—	—	—	—

Differences of .003 significance presented above diagonal; differences of .0007 significance presented below diagonal

Note: Values were obtained by using the Difference Score formula, Sattler (2001, p. 301), and were rounded to integers.

[a] Administration of the Motor Skills Domain is optional for individuals aged 7–49. If this domain was administered for an individual aged 7–49 and an estimated standard score was obtained, do not use Motor Skills in the comparisons.

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Table D.5 *continued*

Ages 22:0–31:11

	Communication			Daily Living Skills			Socialization			Motor Skills[a]	
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine
	v-Scale Score Difference Required for Significance										
Receptive	—	3	4	5	4	4	4	4	4	—	—
Expressive	4	—	4	4	3	4	4	3	3	—	—
Written	5	5	—	5	4	5	5	4	4	—	—
Personal	6	5	6	—	5	5	5	5	5	—	—
Domestic	5	4	5	6	—	4	4	4	4	—	—
Community	5	5	6	6	5	—	4	4	4	—	—
Interpersonal Relationships	5	5	6	6	5	5	—	4	4	—	—
Play and Leisure Time	5	4	5	6	5	5	5	—	4	—	—
Coping Skills	5	4	5	6	5	5	5	5	—	—	—
Gross	—	—	—	—	—	—	—	—	—	—	—
Fine	—	—	—	—	—	—	—	—	—	—	—

Differences of .003 significance presented above diagonal; differences of .0007 significance presented below diagonal

Note: Values were obtained by using the Difference Score formula, Sattler (2001, p. 301), and were rounded to integers.

[a] Administration of the Motor Skills Domain is optional for individuals aged 7–49. If this domain was administered for an individual aged 7–49 and an estimated standard score was obtained, do not use Motor Skills in the comparisons.

Ages 32:0–51:11

	Communication			Daily Living Skills			Socialization			Motor Skills[a]	
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine
	v-Scale Score Difference Required for Significance										
Receptive	—	6	6	6	6	6	5	6	6	—	—
Expressive	7	—	5	4	5	4	4	5	4	—	—
Written	7	6	—	5	5	5	4	5	5	—	—
Personal	7	5	6	—	5	5	4	5	5	—	—
Domestic	7	6	6	6	—	5	4	5	5	—	—
Community	7	5	6	6	6	—	4	5	4	—	—
Interpersonal Relationships	6	5	5	5	5	5	—	5	4	—	—
Play and Leisure Time	7	6	6	6	6	6	6	—	5	—	—
Coping Skills	7	5	6	6	6	5	5	6	—	—	—
Gross	—	—	—	—	—	—	—	—	—	—	—
Fine	—	—	—	—	—	—	—	—	—	—	—

Differences of .003 significance presented above diagonal; differences of .0007 significance presented below diagonal

Note: Values were obtained by using the Difference Score formula, Sattler (2001, p. 301), and were rounded to integers.

[a] Administration of the Motor Skills Domain is optional for individuals aged 7–49. If this domain was administered for an individual aged 7–49 and an estimated standard score was obtained, do not use Motor Skills in the comparisons.

continued on next page

Table D.5 *continued*

Ages 52:0–71:11

	Communication			Daily Living Skills			Socialization			Motor Skills[a]	
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine
	v-Scale Score Difference Required for Significance										
Receptive	—	6	7	7	7	7	7	7	6	7	7
Expressive	7	—	4	5	5	4	4	5	3	4	5
Written	8	5	—	6	5	5	5	5	4	5	6
Personal	8	6	7	—	6	6	6	6	5	6	6
Domestic	8	6	6	7	—	5	5	6	5	5	6
Community	8	5	6	7	6	—	5	5	4	5	6
Interpersonal Relationships	8	5	6	7	6	6	—	5	4	5	6
Play and Leisure Time	8	6	6	7	7	6	6	—	5	5	6
Coping Skills	7	4	5	6	6	5	5	6	—	4	5
Gross[a]	8	5	6	7	6	6	6	6	5	—	6
Fine[a]	8	6	7	7	7	7	7	7	6	7	—

Differences of .003 significance presented above diagonal; differences of .0007 significance presented below diagonal

Note: Values were obtained by using the Difference Score formula, Sattler (2001, p. 301), and were rounded to integers.

[a] Includes ages 50–51

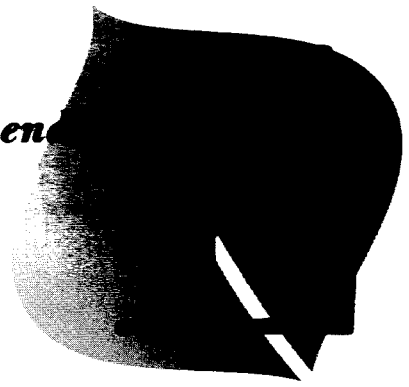
Ages 72:0–90:11

	Communication			Daily Living Skills			Socialization			Motor Skills	
	Receptive	Expressive	Written	Personal	Domestic	Community	Interpersonal Relationships	Play and Leisure Time	Coping Skills	Gross	Fine
	v-Scale Score Difference Required for Significance										
Receptive	—	2	4	3	4	3	4	3	4	3	5
Expressive	3	—	4	2	3	2	4	3	3	3	5
Written	5	5	—	4	5	4	5	5	5	5	6
Personal	4	3	5	—	4	3	4	3	4	3	5
Domestic	5	4	6	5	—	4	5	4	5	4	6
Community	4	3	5	4	5	—	4	3	4	3	5
Interpersonal Relationships	5	5	6	5	6	5	—	4	5	4	6
Play and Leisure Time	4	4	6	4	5	4	5	—	4	4	5
Coping Skills	5	4	6	5	6	5	6	5	—	4	6
Gross	4	4	6	4	5	4	5	5	5	—	5
Fine	6	6	7	6	7	6	7	6	7	6	—

Differences of .003 significance presented above diagonal; differences of .0007 significance presented below diagonal

Note: Values were obtained by using the Difference Score formula, Sattler (2001, p. 301), and were rounded to integers.

Scoring Criteria



Scoring Criteria		
ITEM	**SUBDOMAIN**	**CRITERIA**
Domain: Communication ***Subdomain: Receptive***		
1. Turns eyes and head toward sound.	**Receptive**	The individual demonstrates awareness of noise by turning his or her eyes and head.
2. Looks toward parent or caregiver when hearing parent's or caregiver's voice.	**Receptive**	The individual responds to parent's or caregiver's voice by looking toward the sound.
3. Responds to his or her name spoken (for example, turns toward speaker, smiles, etc.).	**Receptive**	The individual demonstrates recognition of his or her name by smiling or turning toward the speaker.
4. Demonstrates understanding of the meaning of no, or word or gesture with the same meaning (for example, stops current activity briefly).	**Receptive**	The individual demonstrates understanding by stopping what he or she is doing when the caregiver says no, or otherwise indicates knowledge that the activity should stop. If the parent or caregiver reports that he or she does not say no to the individual, score 0.
5. Demonstrates understanding of the meaning of yes, or word or gesture with the same meaning (for example, continues activity, smiles, etc.).	**Receptive**	The individual demonstrates understanding by smiling or proceeding with what he or she is doing when the caregiver says yes. If the caregiver reports that he or she does not say yes or okay to the individual, score 0.
6. Listens to story for at least 5 minutes (that is, remains relatively still and directs attention to the storyteller or reader).	**Receptive**	The individual remains still and pays full attention to a story the caregiver or another person is reading or telling. If the caregiver says that the individual is too young or immature to listen attentively, score 0.
7. Points to at least three major body parts when asked (for example, nose, mouth, hands, feet, etc.).	**Receptive**	
8. Points to common objects in a book or magazine as they are named (for example, dog, car, cup, key, etc.).	**Receptive**	Individual demonstrates understanding of names of objects by pointing correctly when prompted by parent or caregiver.
9. Listens to instructions.	**Receptive**	When the parent or caregiver speaks directly to the individual, he or she looks at the parent or caregiver and usually does not interrupt. If the parent or caregiver says that the individual is too young or immature to listen attentively, score 0.
10. Follows instructions with one action and one object (for example, "Bring me the book"; "Close the door"; etc.).	**Receptive**	Individual correctly completes the action as instructed.
11. Points to at least five minor body parts when asked (for example, fingers, elbows, teeth, toes, etc.).	**Receptive**	
12. Follows instructions with two actions or an action and two objects (for example, "Bring me the crayons and the paper"; "Sit down and eat your lunch"; etc.).	**Receptive**	The individual correctly completes both parts of the instructions, without needing either part repeated.
13. Follows instructions in "if-then" form (for example, "If you want to play outside, then put your things away"; etc.).	**Receptive**	For example, if you are cold, get your sweater. The word "then" may be inferred.

continued on next page

Scoring Criteria

ITEM	SUBDOMAIN	CRITERIA
14. Listens to a story for at least 15 minutes.	Receptive	Score 1 if the individual listens to a story more than 5 minutes but fewer than 15 minutes. Score 0 if the individual listens fewer than 5 minutes.
15. Listens to story for at least 30 minutes.	Receptive	Score 1 if the individual listens to a story for more than 15 minutes but fewer than 30. Score 0 if the individual listens fewer than 15 minutes.
16. Follows three-part instructions (for example, "Brush your teeth, get dressed, and make your bed"; etc.).	Receptive	The individual follows all three parts to the instructions, without needing any parts repeated.
17. Follows instructions or directions heard 5 minutes before.	Receptive	The individual follows the instructions after a brief time, without having the instructions repeated.
18. Understands sayings that are not meant to be taken word for word (for example, "Button your lip"; "Hit the road"; etc.).	Receptive	The individual demonstrates understanding by responding appropriately. For example, the individual stops talking when told "Button your lip."
19. Listens to an informational talk for at least 15 minutes.	Receptive	Examples are the presentation of a new lesson in a class, a sermon, and a political speech. The individual must demonstrate attention by sitting fairly still and concentrating, or by later mentioning the material. If the individual attends only to information of particular interest to him or her for 15 minutes, score 1. If the individual has never been to school or a public lecture, score 0.
20. Listens to an informational talk for at least 30 minutes.	Receptive	Score 1 if the individual listens for more than 15 minutes but fewer than 30 minutes. If the individual attends only to information of particular interest to him or her for 30 minutes, score 1.
Domain: Communication Subdomain: Expressive		
1. Cries or fusses when hungry or wet.	Expressive	The individual cries or fusses to express needs.
2. Smiles when you smile at him or her.	Expressive	The individual spontaneously returns parent's or caregiver's smile.
3. Makes sounds of pleasure (for example, coos, laughs, etc.).	Expressive	The individual indicates pleasure when being talked to or cuddled, or when the parent or caregiver is playful.
4. Makes nonword baby sounds (that is, babbles).	Expressive	For example, the individual strings together consonant or vowel sounds. The noises need not be identifiable or made in response to other people or things. Score 2 for an individual who makes "throaty noises," but score 0 for the individual who only cries.
5. Makes sounds or gestures (for example, waves arms) to get parent's or caregiver's attention.	Expressive	The individual's noises or movements clearly demonstrate an attempt to engage the parent or caregiver.
6. Makes sounds or gestures (for example, shakes head) if he or she wants an activity to stop or keep going.	Expressive	For example, the individual vocalizes, shakes head for no, or nods for yes to communicate what he or she wants. The gestures need not be accompanied by speech.
7. Waves good-bye when another person waves or parent or caregiver tells him or her to wave.	Expressive	The individual spontaneously returns a wave or waves at parent's or caregiver's instruction.
8. Says "Da-da," "Ma-ma," or another name for parent or caregiver (including parent's or caregiver's first name or nickname).	Expressive	Individual may call parent or caregiver by his or her first name.
9. Points to object he or she wants that is out of reach.	Expressive	The individual clearly indicates what he or she wants by looking back and forth between the object and the parent or caregiver and pointing. The pointing need not be accompanied by speech or vocalizing.
10. Points or gestures to indicate preference when offered a choice (for example, "Do you want this one or that one?"; etc.).	Expressive	The individual clearly indicates his or her preference by smiling, reaching, or pointing. The movements need not be accompanied by speech.

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Scoring Criteria

ITEM	SUBDOMAIN	CRITERIA
11. Repeats or tries to repeat common words immediately upon hearing them (for example, ball, car, go, etc.).	Expressive	The individual attempts to imitate a word after hearing it. Articulation need not be perfect to score a 2. If the individual already says words, score 2.
12. Names at least three objects (for example, bottle, dog, favorite toy, etc.).	Expressive	Articulation need not be perfect to score 2.
13. Says one-word requests (for example, up, more, out, etc.).	Expressive	Articulation need not be perfect to score 2. If the individual already speaks in full sentences, score 2.
14. Uses first names or nicknames of brothers, sisters, or friends, or says their names when asked.	Expressive	Articulation need not be perfect to score 2.
15. Answers or tries to answer with words when asked a question.	Expressive	Attempted self-expression, not grammar, is important.
16. Names at least 10 objects.	Expressive	Articulation need not be perfect to score 2.
17. States own first name or nickname (for example, Latesha, Little Sister, etc.) when asked.	Expressive	Articulation need not be perfect to score 2.
18. Uses phrases with a noun and a verb (for example, "Katie stay"; "Go home"; etc.).	Expressive	Examples of noun-verb phrases are "Sally go" and "go home." Articulation need not be perfect to score 2.
19. Asks questions by changing inflection of words or simple phrases (for example, "Mine?"; "Me go?"; etc.); grammar is not important.	Expressive	If the individual is already asking complete questions (for example, "Is that book mine?" or "May I go, too?"), score 2.
20. Says at least 50 recognizable words.	Expressive	Articulation need not be perfect to score 2.
21. Uses simple words to describe things (for example, dirty, pretty, big, loud, etc.).	Expressive	The individual must clearly show understanding of the adjectives, not just pronounce them, to score 2.
22. Asks questions beginning with what or where (for example, "What's that?"; "Where doggie go?"; etc.).	Expressive	The individual need not use both words to score 2.
23. Uses negatives in sentences (for example, "Me no go"; "I won't drink it"; etc.); grammar is not important.	Expressive	
24. Tells about experiences in simple sentences (for example, "Ginger and I play"; "Dan read me a book"; etc.).	Expressive	Full sentences contain a subject and verb, and predicate if necessary to the meaning of the sentence. Generally correct use of grammar is required to score 2; the individual must not use sentences that sound awkward. (Varying regional and cultural constructions are acceptable.)
25. Says correct age when asked.	Expressive	Score 0 if the individual holds up the correct number of fingers but does not state the age.
26. Says at least 100 recognizable words.	Expressive	Articulation need not be perfect to score 2.
27. Uses in, on, or under in phrases or sentences (for example, "Ball go under chair"; "Put it on the table"; etc.).	Expressive	The individual must use two of the three prepositions to score a 2. If he or she uses only one, score 1.
28. Uses and in phrases or sentences (for example, "Mom and Dad"; "I want ice cream and cake"; etc.).	Expressive	
29. Says first and last name when asked.	Expressive	The middle name is not required, and articulation need not be perfect to score 2.
30. Identifies and names most common colors (that is, red, blue, green, yellow, orange, purple, brown, and black). ***SCORING TIP:*** *Mark a "2" if the individual names 6 to 8 colors; mark a "1" if the individual names 2 to 5 colors; mark a "0" if the individual names 1 or no colors.*	Expressive	

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Scoring Criteria

ITEM	SUBDOMAIN	CRITERIA
31. Asks questions beginning with who or why (for example, "Who's that?"; "Why do I have to go?"; etc.).	Expressive	Individual need not use both words to score 2. Use of the word why alone is scored 2 if the rest of the sentence is clearly inferred. For example, the individual may ask "why?" when asked to perform a task.
32. Uses present tense verbs ending in ing (for example, "Is singing"; "Is playing"; etc.).	Expressive	
33. Uses possessives in phrases or sentences (for example, "That's her book"; "This is Carlos's ball"; etc.).	Expressive	
34. Uses pronouns in phrases or sentences; must use correct gender and form of the pronoun, but sentences need not be grammatically correct (for example, "He done it"; "They went"; etc.).	Expressive	Individual must clearly demonstrate understanding of how the meaning of pronouns, specifically personal pronouns, changes depending on the context or speaker. If the individual has difficulty reversing the listener's and speaker's roles, score 0. (For example, if the individual says, "You want candy," to ask for candy.)
35. Asks questions beginning with when (for example, "When is dinner?"; "When can we go home?"; etc.).	Expressive	
36. Uses regular past tense verbs (for example, walked, baked, etc.); may use irregular past tense verbs ungrammatically (for example, "I runned away"; etc.).	Expressive	
37. Uses behind or in front of in phrases or sentences (for example, "I walked in front of her"; "Terrell is behind you"; etc.).	Expressive	Individual need not use both words to score 2.
38. Pronounces words clearly without sound substitutions (for example, does not say "wabbit" for "rabbit," "Thally" for "Sally," etc.).	Expressive	If individual substitutes one sound, score 1.
39. Tells basic parts of a story, fairy tale, or television show plot; does not need to include great detail or recount in perfect order.	Expressive	The individual must tell whom the story is about, what happens, and how the story ends. Neither great detail nor perfect order are required to score 2, but the basic parts of the story must be included without prompting.
40. Says month and day of birthday when asked.	Expressive	If the individual states either the month or day but not both, score 1.
41. Modulates tone of voice, volume, and rhythm appropriately (for example, does not consistently speak too loudly, too softly, or in a monotone, etc.).	Expressive	The individual's voice does not always sound the same.
42. Tells about experiences in detail (for example, tells who was involved, where activity took place, etc.).	Expressive	The amount of detail in the individual's language, not grammar or articulation, is important.
43. Gives simple directions (for example, on how to play a game or how to make something). ***SCORING TIP:*** *Mark a "2" if the directions are clear enough to follow; mark a "1" if the individual articulates directions but they are not clear enough to follow; mark a "0" if the individual never attempts to articulate directions.*	Expressive	
44. Uses between in phrases or sentences (for example, "The ball went between the cars"; etc.).	Expressive	
45. Says own telephone number when asked.	Expressive	The individual does not need to include the area code to score 2, unless the code is required within certain calling areas to complete the call.
46. Easily moves from one topic to another in conversation.	Expressive	The individual does not persist with the same topic when the other person tries to talk about something else.
47. Stays on topic in conversations; does not go off on tangents.	Expressive	The individual keeps his or her contributions relevant to the topic.

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Scoring Criteria

ITEM	SUBDOMAIN	CRITERIA
48. Explains ideas in more than one way (for example, "This was a good book. It was exciting and fun to read"; etc.).	**Expressive**	If not understood at first, the individual may clarify a previous statement with "I mean ..." or "I meant to say..." followed by an explanation. The explanation must use several new words to score 2.
49. Has conversations that last 10 minutes (for example, relates experiences, contributes ideas, shares feelings, etc.).	**Expressive**	The individual must talk to one or more people, alternately listening and responding to the others.
50. Uses irregular plurals correctly (for example, children, geese, mice, women, etc.).	**Expressive**	Irregular plurals are those which have a form and spelling different from their singular counterparts, other than an additional s. If the individual uses most irregular plurals correctly, with only an occasional mistake on a more unusual noun, score 2. Score 0 if the individual uses double plural combinations such as "mices."
51. Says complete home address (that is, street or rural route, apartment number, city, and state), with or without zip code, when asked.	**Expressive**	The individual must state the address as it would be written on an envelope. The zip code is not required to score 2. If the individual lives in a residential school or facility, score 2 if the individual states either this address or the home address.
52. Describes a short-term goal and what he or she needs to do to reach it (for example, "I want to get an A on my test so I'm going to study hard"; etc.).	**Expressive**	The goal must be realistic, and the individual must describe how he or she is going to achieve it. Evidence that the individual is thinking ahead is necessary to score 2. For example, if the individual says, "I want to finish my book report for English early. I'm going read the book by this weekend, and start the report on Saturday," score 2. Score 0 if the individual makes an isolated or offhand comment with no follow-up on how the goal would be achieved.
53. Gives complex directions to others (for example, to distant location, for recipe with many ingredients or steps, etc.). ***SCORING TIP:*** *Mark a "2" if the directions are clear enough to follow; mark a "1" if the individual articulates directions but they are not clear enough to follow; mark a "0" if the individual never attempts to articulate directions.*	**Expressive**	
54. Describes a realistic long-range goal that can be done in 6 months or more (for example, "I want to buy a bike, so I'll babysit and run errands to earn enough money to buy it"; etc.).	**Expressive**	The goal must be realistic, and the individual must give a detailed explanation of how it is to be achieved. Evidence that the individual is thinking ahead is necessary to score 2.
Domain: Communication ***Subdomain: Written***		
1. Identifies one or more alphabet letters as letters and distinguishes them from numbers.	**Written**	Score 2 if the individual names one or more letters in isolation or within a word.
2. Recognizes own name in printed form.	**Written**	
3. Identifies at least 10 printed letters of alphabet.	**Written**	
4. Prints or writes using correct orientation (for example, in English from left to right; in some languages from right to left or top to bottom).	**Written**	The individual need only write in the correct orientation for his or her primary language to score 2.
5. Copies own first name.	**Written**	
6. Identifies all printed letters of alphabet, upper- and lowercase.	**Written**	
7. Prints at least three simple words from example (for example, cat, see, bee, etc.).	**Written**	
8. Prints or writes own first and last name from memory.	**Written**	The middle name is not required to score 2.

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Scoring Criteria

ITEM	SUBDOMAIN	CRITERIA
9. Reads at least 10 words aloud.	Written	The individual must clearly show understanding of the meaning of the words, not just pronounce them, to score 2. For example, the individual points to a picture relating to a particular word or says something about the word. Letters may be uppercase or lowercase.
10. Prints at least 10 simple words from memory (for example, hat, ball, the, etc.).	Written	
11. Reads simple stories aloud (that is, stories with sentences of three to five words).	Written	A listener must be present. Ability or amount read is not important. The individual who misses many words, and even the one who reads with so much difficulty that the listener must see the book to follow the story, scores 2.
12. Prints simple sentences of three or four words; may make small errors in spelling or sentence structure.	Written	Attempted self-expression, not grammar or spelling, is important. If the individual only copies sentences from a model, score 0.
13. Prints more than 20 words from memory; may make small spelling errors.	Written	
14. Reads and understands material of at least second-grade level.	Written	The individual may read silently or aloud. Ability is more important than interest in reading. The individual who reads books of second-grade level only when asked to do so scores 2.
15. Puts lists of words in alphabetical order.	Written	
16. Writes simple correspondence at least three sentences long (for example, postcards, thank-you notes, e-mail, etc.).	Written	Errors in spelling and sentence construction may occur. If the individual only copies words or sentences from a model, score 0.
17. Reads and understands material of at least fourth-grade level.	Written	The individual may read silently or aloud. Ability is more important than interest in reading. The individual who reads books of fourth-grade level only when asked to do so scores 2.
18. Writes reports, papers, or essays at least one page long; may use computer.	Written	Spelling and sentence construction need not be perfect. If the individual has not been asked to write reports or compositions, score 0.
19. Writes complete mailing and return addresses on letters or packages.	Written	Another person may supply the addresses, but the individual must write the mailing address and the return address, including the name, house or box number, street or route, city, state, and zip code. If only the zip code is omitted, score 1.
20. Reads and understands material of at least sixth-grade level.	Written	The individual may read silently or aloud. Ability is more important than interest in reading. The individual who reads books of sixth-grade level only when asked to do so scores 2.
21. Edits or corrects own written work before handing it in (for example, checks punctuation, spelling, grammar, etc.).	Written	The individual must take the initiative to correct written assignments, as well as other forms of writing, such as e-mail and letters, without being prompted to do so by the teacher or caregiver.
22. Writes advanced correspondence at least 10 sentences long; may use computer.	Written	The correspondence must be written in the individual's own words, on the individual's own initiative, with few mistakes in spelling or grammar.
23. Reads and understands material of at least ninth-grade level.	Written	Ability is more important than interest in reading. The individual who reads books of ninth-grade level only when asked to do so scores 2.
24. Reads at least two newspaper articles weekly (print or electronic version).	Written	The individual must read the articles in newspapers or magazines for adults on his or her own initiative, for information or entertainment. If the individual reads only comics or headlines or only looks at pictures, score 0.
25. Writes business letters (for example, requests information, makes complaint, places order, etc.); may use computer.	Written	The individual must have independently written and mailed more than one business letter on his or her own initiative to score 2. Prepared forms, where one need only check boxes and write name and address, are not included.

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Scoring Criteria

ITEM	SUBDOMAIN	CRITERIA
Domain: Daily Living Skills *Subdomain: Personal*		
1. Opens mouth when food is offered.	Personal	The individual indicates anticipation by turning head toward the food, opening mouth, sucking, or showing an increased level of activity.
2. Eats solid foods (for example, cooked vegetables, chopped meats, etc.).	Personal	The individual must chew and swallow the food to score 2, but the food need not be especially difficult to chew, such as steak or hard candy.
3. Sucks or chews on finger foods (for example, crackers, cookies, toast, etc.).	Personal	Examples are zwieback and graham crackers. The caregiver may hold the food.
4. Drinks from a cup or glass; may spill.	Personal	The individual holds the cup or glass independently; some spilling while drinking may occur. If the individual uses only cups or glasses with lids, or "sippy" cups, score 0.
5. Lets someone know when he or she has wet or soiled diaper or pants (for example, points, vocalizes, pulls at diaper, etc.).	Personal	Individual may "tell" an older sibling, day care provider or other. If the individual indicates wet or soiled pants only by crying, or if the caregiver "knows" that diapers are soiled without the individual indicating it, score 0.
6. Feeds self with spoon; may spill.	Personal	Occasional spilling may occur. If the individual has not yet been given a spoon or is not permitted to use a spoon for eating, score 0.
7. Sucks from straw.	Personal	If the individual is not given straws, score 0.
8. Takes off clothing that opens in the front (for example, a coat or sweater); does not have to unbutton or unzip the clothing.	Personal	The individual need not unbutton or unzip the garment to score 2, but must remove it completely, without assistance, if the fasteners are not closed.
9. Pulls up clothing with elastic waistbands (for example, underwear or sweatpants).	Personal	The individual must put the garments on correctly (e.g., right side out, front in front, without the garment being tangled or askew) and without assistance to score 2.
10. Feeds self with fork; may spill.	Personal	The individual may either spear food or lift it onto the fork. Some spilling may occur. If the individual has not yet been given a fork or is not permitted to use a fork for eating, score 0.
11. Drinks from a cup or glass without spilling.	Personal	If the individual uses a "sippy" cup, score 0.
12. Feeds self with spoon without spilling.	Personal	The individual need not hold the spoon correctly to score 2. If the individual has not yet been given a spoon or is not permitted to use a spoon for eating, score 0.
13. Urinates in toilet or potty chair.	Personal	If the individual has only partial bladder control, score 1. If toilet training has not begun, score 0.
14. Puts on clothing that opens in the front (for example, a coat or sweater); does not have to zip or button the clothing.	Personal	
15. Asks to use toilet.	Personal	If the individual does not ask but already goes on own initiative, score 2. If toilet training has not begun, score 0.
16. Defecates in toilet or potty chair.	Personal	If the individual has only partial bowel control, score 1. If toilet training has not begun, score 0.
17. Is toilet-trained during the day. ***SCORING TIP:*** *Mark "2" if the individual uses the toilet without help and without accidents; mark "1" if the individual needs help, such as with wiping, or has some accidents; mark "0" if the individual always needs help or has frequent accidents.*	Personal	The individual must decide to go to the bathroom, must arrange outer clothing and underwear, and must wipe, flush toilet, and wash hands to score 2. If the individual is not toilet-trained or is not permitted to perform toileting tasks without assistance, score 0.
18. Zips zippers that are fastened at the bottom (for example, in pants, on backpacks, etc.).	Personal	

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Scoring Criteria

ITEM	SUBDOMAIN	CRITERIA
19. Wipes or blows nose using tissue or handkerchief.	Personal	The individual must wipe and blow nose, without assistance and without being reminded, to score 2. The caregiver must be satisfied with the individual's ability to care for nose in all circumstances.
20. Is toilet-trained during the night.	Personal	Occasional accidents at night may occur. If toilet training has not begun, or if the individual wears diapers at night, score 0.
21. Puts shoes on correct feet; does not need to tie laces.	Personal	The individual need not tie, buckle, or fasten Velcro™ fasteners to score 2. If the caregiver routinely performs the task for the individual, score 0.
22. Fastens snaps.	Personal	The individual must connect the two sides of the snap on a shirt, jacket, or pants.
23. Holds spoon, fork, and knife correctly.	Personal	The individual must hold the utensils properly, spill rarely, and use a knife for both spreading and cutting. If the individual has not yet been given utensils or is not permitted to use utensils for eating, score 0.
24. Washes and dries face using soap and water.	Personal	To score 2, the individual must always use soap and must do the washing and drying unassisted, but may be reminded to wash.
25. Brushes teeth. ***SCORING TIP:*** *Mark a "2" if the individual brushes teeth without help, including putting toothpaste on the brush, and without being told to brush; mark "1" if the individual needs help brushing or putting toothpaste on the brush or needs frequent reminders; mark "0" if the individual never brushes without help or without being reminded.*	Personal	The individual must put the toothpaste on the toothbrush and brush independently to score 2. If brushing teeth has not been started, score 0.
26. Buttons large buttons in front, in correct buttonholes.	Personal	
27. Covers mouth and nose when coughing and sneezing.	Personal	The individual may use his or her arm, hand, or a tissue. If the individual has never been taught to cover his or her mouth and nose, score 0.
28. Buttons small buttons in front, in correct buttonholes.	Personal	
29. Connects and zips zippers that are not fastened at the bottom (for example, in jackets, sweatshirts, etc.).	Personal	
30. Turns faucets on and adjusts temperature by adding hot or cold water.	Personal	The faucet may be a sink faucet or bath faucet. The individual must independently turn on the faucet and adjust the temperature to score 2.
31. Wears appropriate clothing during wet or cold weather (for example, raincoat, boots, sweater, etc.).	Personal	Planning is important. For example, the individual must take an umbrella or a raincoat if rain appears likely, and must take a sweater on a warm day if the evening will be cool. If the caregiver chooses clothing for the individual, score 0.
32. Bathes or showers and dries self. ***SCORING TIP:*** *Mark a "2" if the individual bathes or showers without help, including turning the water on and off; mark a "1" if the individual needs help with any part of bathing or drying or with turning the water on and off; mark "0" if the individual never bathes or showers without help or without reminders.*	Personal	If the caregiver routinely dries the individual, score 0. The caregiver may provide towel, soap, and washcloth, and put soap on the washcloth.
33. Finds and uses appropriate public restroom for his or her gender.	Personal	Individual must independently find and identify the appropriate restroom.
34. Washes and dries hair (with towel or hair dryer).	Personal	

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Scoring Criteria

ITEM	SUBDOMAIN	CRITERIA
35. Cares for minor cuts (for example, cleans wound, puts on a bandage, etc.).	Personal	The individual must wash the cut, and, if appropriate, apply a bandage. The individual may tell the caregiver about the injury and expect sympathy, but must care for the cut without assistance to score 2. If minor assistance is needed, score 1, but if the caregiver routinely performs the entire task, score 0. The individual who asks for a bandage when none is required scores 0.
36. Takes medicine as directed (that is, follows directions on label).	Personal	The individual must independently read the directions on the label.
37. Uses thermometer to take own or another's temperature.	Personal	The individual must independently take his or her own temperature, or that of someone else, and read the number.
38. Seeks medical help in an emergency (for example, recognizes symptoms of serious illness or injury, such as shortness of breath, chest pain, uncontrolled bleeding, etc.). ***SCORING TIP:*** *You may mark "N/O" for No Opportunity if the individual has not been in a medical emergency.*	Personal	The individual must demonstrate recognition of the need for medical help.
39. Follows directions for health care procedures, special diet, or medical treatments. ***SCORING TIP:*** *You may mark "N/O" for No Opportunity if the individual does not have a health concern that requires special procedures, diet, or treatments.*	Personal	The individual must assume total responsibility for own health if he or she has a condition or health concern requiring special procedures, diet, or treatment.
40. Keeps track of medications (nonprescription and prescription) and refills them as needed.	Personal	If the individual is not old enough to refill medications, or the caregiver routinely does so, score 0.
41. Makes appointments for regular medical and dental checkups.	Personal	The individual must schedule his or her own appointments. If the individual is not old enough or not allowed to make his or her own appointments, or if the caregiver routinely makes them, score 0.
Domain: Daily Living Skills	***Subdomain: Domestic***	
1. Is careful around hot objects (for example, the stove or oven, an open fire, etc.).	Domestic	The individual must avoid matches and hot stoves and pots, or ask questions such as "Is that safe to touch?" or "Is this hot?" to score 2. If the individual does not touch hot items because he or she cannot crawl or walk, score 0.
2. Helps with simple household chores (for example, dusts, picks up clothes or toys, feeds pet, etc.).	Domestic	
3. Clears unbreakable items from own place at table.	Domestic	Examples are plastic plates, cups, or glasses; silverware; and paper plates or napkins.
4. Cleans up play or work area at end of an activity (for example, finger painting, model building, etc.).	Domestic	Individual must independently put away toys or materials after using them.
5. Puts away personal possessions (for example, toys, books, magazines, etc.).	Domestic	If the individual must be told where to put the toys or other belongings, score 0.
6. Is careful when using sharp objects (for example, scissors, knives, etc.).	Domestic	For example, points scissors or knives down when carrying them.
7. Clears breakable items from own place at table.	Domestic	
8. Helps prepare foods that require mixing and cooking (for example, cake or cookie mixes, macaroni and cheese, etc.).	Domestic	The individual need not measure foods or take responsibility for cooking; the individual may simply help.
9. Uses simple appliances (for example, a toaster, can opener, bottle opener, etc.).	Domestic	

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Scoring Criteria

ITEM	SUBDOMAIN	CRITERIA
10. Uses microwave oven for heating, baking, or cooking (that is, sets time and power setting, etc.). ***SCORING TIP:*** *You may mark a "N/O" for No Opportunity if there is no microwave in the home.*	**Domestic**	The individual must set the time and power setting without assistance. If the individual uses the microwave oven but only when an adult is in the kitchen, score 2.
11. Puts clean clothes away in proper place (for example, in drawers or closet, on hooks, etc.).	**Domestic**	The individual must hang clothes on hangers, when appropriate, and must place folded clothes neatly in drawers, but need not fold them, to score 2. If the individual puts folded clothes in drawers or hangs clothes on hangers, but not both, score 1.
12. Uses tools (for example, a hammer to drive nails, a screwdriver to screw and unscrew screws, etc.).	**Domestic**	The individual must use the tools for a purpose, such as using a hammer to drive a nail for hanging a picture and using a screwdriver to tighten a screw on a door hinge. Other examples of tools include a wrench, saw, or shovel. The individual must have used two or more basic tools to score 2. If the individual has used only one such tool, score 1. The individual who simply plays with tools or pretends to be working with them scores 0.
13. Washes dishes by hand or loads and uses dishwasher.	**Domestic**	Individual must select the cycle, put in the detergent, and turn the dishwasher on to score 2.
14. Sweeps, mops, or vacuums floors thoroughly. ***SCORING TIP:*** *Mark a "2" if the individual mops, sweeps, or vacuums so well that the task does not have to be redone; mark a "1" if the individual doesn't consistently complete the task well; mark a "0" if the individual never mops, sweeps, or vacuums, or does the task so poorly that it always needs to be redone.*	**Domestic**	
15. Clears table completely (for example, scrapes and stacks dishes, throws away disposable items, etc.).	**Domestic**	
16. Uses household products correctly (for example, laundry detergent, furniture polish, glass cleaner, etc.).	**Domestic**	To score 2, the individual must read instructions when using unfamiliar products. If the individual cannot read, is not permitted to use cleaning products, or has never been asked to use them, score 0.
17. Prepares basic foods that do not need mixing but require cooking (for example, rice, soup, vegetables, etc.).	**Domestic**	The foods may be from packaged mixes. The individual must open the container and cook the food. If an adult is present in the kitchen or house but does not assist, score 2.
18. Cleans one or more rooms other than own bedroom.	**Domestic**	The individual must regularly assume responsibility for cleaning a room other than his or her own (e.g., the kitchen or bathroom).
19. Uses sharp knife to prepare food.	**Domestic**	The individual must use a sharp knife to prepare fruits, vegetables, or meat before cooking or eating.
20. Uses stove or oven for heating, baking, or cooking (that is, turns burners on and off, sets oven temperature, etc.).	**Domestic**	The individual must turn the burners of the stove on and off or set the oven temperature without assistance to heat such foods as canned vegetables, spaghetti, or soup. If the individual cooks but is permitted to do so only when an adult is in the kitchen, score 2.
21. Prepares food from ingredients that require measuring, mixing, and cooking.	**Domestic**	The foods may be from packaged mixes. The individual must open the container, mix the ingredients, and cook. If an adult is present in the kitchen or house but does not assist, score 2.
22. Washes clothing as needed.	**Domestic**	The individual must wash and dry clothes, and put them away appropriately to score 2.
23. Performs maintenance tasks as needed (for example, replaces light bulbs, changes vacuum cleaner bag, etc.).	**Domestic**	The individual must recognize when these tasks are needed and perform them on his or her own initiative.
24. Plans and prepares main meal of the day.	**Domestic**	The individual must have planned and prepared the main meal for him- or herself or others more than once without assistance to score 2. The meals must have been reasonably well balanced, most often with a main course, vegetable, and beverage.

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Scoring Criteria

ITEM	SUBDOMAIN	CRITERIA
Domain: Daily Living Skills ***Subdomain: Community***		
1. Demonstrates understanding of function of telephone (for example, pretends to talk on phone, etc.).	Community	Successful use of the telephone is not required to score 2.
2. Talks to familiar person on telephone.	Community	Score 2 even if another person must encourage or hand the telephone to the individual.
3. Uses TV or radio without help (for example, turns equipment on, accesses channel or station, selects program, etc.). ***SCORING TIP:*** *You may mark "N/O" for No Opportunity if there is no TV or radio in the home.*	Community	The individual must select a program, turn on the television or radio, and turn to the correct channel or station. If the individual is not permitted to operate the TV or radio independently, score 0.
4. Counts at least 10 objects, one by one.	Community	
5. Is aware of and demonstrates appropriate behavior while riding in car (for example, keeps seat belt on, refrains from distracting driver, etc.).	Community	If the individual demonstrates appropriate behavior but is too young to understand why that behavior is needed, score 0.
6. Demonstrates understanding of the function of money (for example, says, "Money is what you need to buy things at the store"; etc.).	Community	
7. Uses sidewalk (where available) or shoulder of road when walking or using wheeled equipment (for example, skates, scooter, tricycle, etc.).	Community	The individual demonstrates awareness of safety issues by staying out of the path of cars.
8. Demonstrates understanding of function of clock (for example, says, "Clocks tell time"; "What time can we go?"; etc.).	Community	
9. Follows household rules (for example, no running in the house, no jumping on the furniture, etc.).	Community	If the individual has not been given rules to follow, score 0.
10. Demonstrates computer skills necessary to play games or start programs with computer turned on; does not need to turn computer on by self. ***SCORING TIP:*** *You may mark "N/O" for No Opportunity if there is no computer in the home.*	Community	
11. Summons to the telephone the person receiving a call or indicates that the person is not available.	Community	
12. Identifies penny, nickel, dime, and quarter by name when asked; does not need to know the value of coins.	Community	The individual must state the name of each coin when asked.
13. Looks both ways when crossing streets or roads.	Community	If the individual routinely does this on a neighborhood street or road, score 2 whether or not the individual crosses busy streets alone. If the individual is not permitted to cross the street or leave the home or facility grounds, score 0.
14. Says current day of the week when asked.	Community	
15. Demonstrates understanding of right to personal privacy for self and others (for example, while using restroom or changing clothes; etc.).	Community	
16. Demonstrates knowledge of what phone number to call in an emergency when asked.	Community	The individual need not have been involved in an emergency but must say the number correctly when asked, "What number would you call in an emergency?"
17. Tells time using a digital clock or watch.	Community	
18. States value of penny (1 cent), nickel (5 cents), dime (10 cents), and quarter (25 cents).	Community	The individual must state the value of all of the coins to score 2.

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ITEM	SUBDOMAIN	CRITERIA
19. Discriminates between bills of different denominations (for example, refers to $1 bills, $5 bills, etc., in conversation; etc.).	Community	The individual must either refer to bills of different denominations in conversation or pay for own purchases using appropriate bills of different amounts. If the individual has never referred to different denominations or used bills, score 0.
20. Obeys traffic lights and Walk and Don't Walk signs.	Community	The individual who crosses streets only with another person must demonstrate attention to signals by saying, for example, "Stop-it's a red light" or "Now we can walk." The individual who simply follows another person who is obeying lights and signs scores 0.
21. Points to current or other date on calendar when asked.	Community	The individual need not state the current date or another date but identify it on a calendar.
22. Demonstrates understanding that some items cost more than others (for example, says, "I have enough money to buy gum but not a candy bar "; "Which pencil costs less?"; etc.).	Community	
23. Tells time by the half hour on analog clock (for example, 1:30, 2:00, etc.).	Community	An analog clock is one with face and hands.
24. Makes telephone calls to others using standard or cell phone.	Community	To score 2, the individual need only to make the call; the number can be supplied by another person.
25. Orders a complete meal in a fast-food restaurant. ***SCORING TIP:*** *You may mark "N/O" for No Opportunity if the individual has not eaten at a fast-food restaurant.*	Community	The individual must read the menu and, when asked by the waiter or waitress, "May I help you?" must say independently, "I'd like...." Another person may clarify the menu (e.g., explain that certain foods come with a particular selection, but the individual must make the selection and place the order. If the individual cannot read the menu, score 0.
26. Carries or stores money safely (for example, in wallet, purse, money belt, etc.).	Community	
27. Tells time by 5-minute segments on analog clock (for example, 1:05, 1:10, etc.).	Community	For example, the individual says, "It's five to one" or "It's twenty after six" when the clock hands are in those positions.
28. Obeys curfew parent or caregiver sets.	Community	For example, if told to be in by three o'clock or to return from a friend's house in half an hour, the individual must do so to score 2. If the individual does not tell time, forgets the time of return, or relies on another person for a reminder, score 0.
29. Watches or listens to programs for information (for example, weather report, news, educational program, etc.). ***SCORING TIP:*** *You may mark "N/O" for No Opportunity if there is no TV or radio in the home.*	Community	Examples of day-to-day information are weather reports, school closings, cancellations of events, and traffic conditions. To score 2, the individual must independently decide to listen to the television or radio, choose the station, and turn it on and off.
30. Counts change from a purchase.	Community	Score 2 if the individual calculates change received or pays for the item by combining coins and bills of various denominations to reach the exact cost. If the individual has never made a purchase or is not permitted to handle money, score 0.
31. Demonstrates computer skills necessary to carry out complex tasks (for example, word processing, accessing the Internet, installing software, etc.). ***SCORING TIP:*** *You may mark "N/O" for No Opportunity if there is no computer in the home.*	Community	
32. Evaluates quality and price when selecting items to purchase.	Community	For example, the individual considers the difference in price between an article of clothing from a high priced designer versus another label.
33. Obeys time limits for breaks (for example, lunch or coffee breaks, etc.).	Community	
34. Travels at least 5 to 10 miles to familiar destination (that is, bikes, uses public transportation, or drives self).	Community	

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Scoring Criteria

ITEM	SUBDOMAIN	CRITERIA
35. Demonstrates understanding of right to complain or report legitimate problems when dissatisfied with services or situations.	Community	
36. Notifies school or supervisor when he or she will be late or absent.	Community	
37. Uses savings or checking account responsibly (for example, keeps some money in account, tracks balance carefully, etc.).	Community	
38. Travels at least 5 to 10 miles to unfamiliar destination (that is, bikes, uses public transportation, or drives self).	Community	
39. Earns money at part-time job (that is, at least 10 hours a week) for 1 year. ***SCORING TIP:*** *Do not mark 1.*	Community	Examples of ways to earn money are regular babysitting, weeding, lawn mowing, and car washing outside the home. If the individual has a regular job for pay within the home or place of residence, this job must be separate from regular required chores.
40. Attempts to improve job performance after receiving constructive criticism from supervisor. ***SCORING TIP:*** *You may mark "N/O" for No Opportunity if the individual has not held a job.*	Community	
41. Manages own money (for example, pays most or all own expenses, uses checks or money orders for purchases as needed, etc.).	Community	To score 2, the individual must pay all own expenses (except room and board), must budget, must use checks or money orders for purchases when cash is not acceptable, and must keep accounts within ability to pay. If the individual responsibly manages money but has many expenses paid by the caregiver, score 1.
42. Has held full-time job for 1 year. ***SCORING TIP:*** *Do not mark 1.*	Community	To score 2, the individual must arrive on time for work, obey time limits for lunch and coffee breaks, notify the supervisor of tardiness or absence, and complete assigned tasks efficiently. If the individual holds only a part-time job, score 0.
43. Budgets for monthly expenses (for example, utilities, rent, etc.).	Community	The individual must set aside, from own income, money for monthly expenses such as utilities and rent. If the individual has insufficient income to budget, or if all expenses are paid by someone else, score 0.
44. Applies for and uses personal credit card responsibly (for example, does not exceed credit limit, pays on time, etc.).	Community	
Domain: Socialization ***Subdomain: Interpersonal Relationships***		
1. Looks at face of parent or caregiver.	Interpersonal Relationships	The individual may look only briefly.
2. Watches (that is, follows with eyes) someone moving by crib or bed for 5 seconds or more.	Interpersonal Relationships	
3. Shows two or more emotions (for example, laughs, cries, screams, etc.).	Interpersonal Relationships	
4. Smiles or makes sounds when approached by a familiar person.	Interpersonal Relationships	
5. Makes or tries to make social contact (for example, smiles, makes noises, etc.).	Interpersonal Relationships	Interest in making contact is important; if the individual smiles or vocalizes only in a solitary manner or situation, score 0.
6. Reaches for familiar person when person holds out arms to him or her.	Interpersonal Relationships	The individual may reach while lying, sitting, or standing, and may use one or both hands.
7. Shows preference for certain people and objects (for example, smiles, reaches for or moves toward person or object, etc.).	Interpersonal Relationships	

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Scoring Criteria

ITEM	SUBDOMAIN	CRITERIA
8. Shows affection to familiar persons (for example, touches, hugs, kisses, cuddles, etc.).	Interpersonal Relationships	For example, the individual initiates or responds appropriately to touches, hugs, kisses, and cuddles.
9. Imitates or tries to imitate parent's or caregiver's facial expressions (for example, smiles, frowns, etc.).	Interpersonal Relationships	
10. Moves about looking for parent or caregiver or other familiar person nearby.	Interpersonal Relationships	When the parent or caregiver is out of sight, the individual moves about to find him or her or another familiar person.
11. Shows interest in children the same age, other than brothers or sisters (for example, watches them, smiles at them, etc.).	Interpersonal Relationships	
12. Imitates simple movements (for example, claps hands, waves good-bye, etc.).	Interpersonal Relationships	
13. Uses actions to show happiness or concern for others (for example, hugs, pats arm, holds hands, etc.).	Interpersonal Relationships	
14. Shows desire to please others (for example, shares a snack or toy, tries to help even if not capable, etc.).	Interpersonal Relationships	Intent to please others is important; the individual who performs a helpful task simply to gain praise (e.g., saying "Look what I did") scores 0.
15. Demonstrates friendship-seeking behavior with others the same age (for example, says, "Do you want to play?" or takes another child by the hand, etc.).	Interpersonal Relationships	
16. Imitates relatively complex actions as they are being performed by another person (for example, shaving, putting on makeup, hammering nails, etc.).	Interpersonal Relationships	
17. Answers when familiar adults make small talk (for example, if asked, "How are you?" says, "I'm fine"; if told, "You look nice," says, "Thank you"; etc.).	Interpersonal Relationships	The individual's response must be appropriate.
18. Repeats phrases heard spoken before by an adult (for example, "Honey, I'm home"; "No dessert until you clean your plate"; etc.).	Interpersonal Relationships	The individual may imitate a familiar person or a person on television.
19. Uses words to express own emotions (for example, "I'm happy"; "I'm scared"; etc.).	Interpersonal Relationships	The individual must verbalize these feelings by saying, "I'm happy," "I'm sad," "I'm scared," and "I'm mad" to score 2. The individual who labels only one, two, or three of these emotions scores 1.
20. Has best friend or shows preference for certain friends (of either sex) over others.	Interpersonal Relationships	The preference must be shown on a relatively consistent basis. If friends are not available or the individual is not permitted to interact with others, score 0.
21. Imitates relatively complex actions several hours after watching someone else perform them (for example, shaving, putting on makeup, hammering nails, etc.).	Interpersonal Relationships	The individual may imitate a familiar person or a person on television. Efforts to imitate are more important than skill, and any object required to do the actual task need not be present.
22. Uses words to express happiness or concern for others (for example says, "Yeah! You won"; "Are you all right?"; etc.).	Interpersonal Relationships	For example, the individual congratulates a friend who receives an award or asks a friend who is sad if he or she is okay.
23. Acts when another person needs a helping hand (for example, holds door open, picks up dropped items, etc.).	Interpersonal Relationships	
24. Recognizes the likes and dislikes of others (for example, says, "Chow likes soccer"; "Susie doesn't eat pizza"; etc.).	Interpersonal Relationships	Examples of likes and dislikes are foods, beverages, colors, and games or activities. The individual must clearly indicate knowledge of others' likes and dislikes.
25. Shows same level of emotion as others around him or her (for example, does not downplay or overdramatize a situation, etc.).	Interpersonal Relationships	

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Scoring Criteria

ITEM	SUBDOMAIN	CRITERIA
26. Keeps comfortable distance between self and others in social situations (for example, does not get too close to another person when talking, etc.).	Interpersonal Relationships	The individual must recognize others' need for personal space. A sense of social appropriateness is necessary to score 2.
27. Talks with others about shared interests (for example, sports, TV shows, summer plans, etc.).	Interpersonal Relationships	The others may be of any age.
28. Starts small talk when meets people he or she knows (for example, says, "How are you?"; "What's up?"; etc.).	Interpersonal Relationships	
29. Meets with friends regularly.	Interpersonal Relationships	
30. Chooses not to say embarrassing or mean things or ask rude questions in public.	Interpersonal Relationships	Examples are questions and statements regarding how another person looks or acts. The individual who says, "You smell awful," "That's ugly," or "My ears hurt when you sing like that" scores 0. A sense of social appropriateness is necessary to score 2.
31. Places reasonable demands on friendship (for example, does not expect to be a person's only friend or to have the friend always available, etc.).	Interpersonal Relationships	The individual must have a realistic view of what can be expected in a friendship.
32. Understands that others do not know his or her thoughts unless he or she says them.	Interpersonal Relationships	
33. Is careful when talking about personal things.	Interpersonal Relationships	For example, the individual does not indiscriminately share personal information.
34. Cooperates with others to plan or be part of an activity (for example, a birthday party, sports event, etc.).	Interpersonal Relationships	
35. Demonstrates understanding of hints or indirect cues in conversation (for example, knows that yawns may mean, "I'm bored," or a quick change of subject may mean, "I don't want to talk about that"; etc.).	Interpersonal Relationships	The individual's sensitivity to the needs and wishes of others, as transmitted through such indirect cues, is important.
36. Starts conversations by talking about things that interest others (for example, says, "Tyrone tells me you like computers"; etc.).	Interpersonal Relationships	The individual uses his or her knowledge of other's interests to initiate conversation.
37. Goes on group dates.	Interpersonal Relationships	The individual goes on dates with other couples.
38. Goes on single dates.	Interpersonal Relationships	To score 2, the individual must be interested in people of the opposite sex, but need not have established a long-term relationship. The individual who has transitory relationships which change from week to week scores 2.
Domain: Socialization Subdomain: Play and Leisure Time		
1. Responds when parent or caregiver is playful (for example, smiles, laughs, claps hands, etc.).	Play and Leisure Time	
2. Shows interest in where he or she is (for example, looks or moves around, touches objects or people, etc.).	Play and Leisure Time	
3. Plays simple interaction games with others (for example, peekaboo, patty-cake, etc.).	Play and Leisure Time	Motor ability is not important.
4. Plays near another child, each doing different things.	Play and Leisure Time	The individual need not interact with the other child but demonstrates awareness of the presence of the other child by observing the other child's play from time to time.
5. Chooses to play with other children (for example, does not stay on the edge of a group or avoid others).	Play and Leisure Time	When other children are available to play with, the individual prefers to play with them rather than watch them or play alone.

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Scoring Criteria

ITEM	SUBDOMAIN	CRITERIA
6. Plays cooperatively with one or more children for up to 5 minutes.	Play and Leisure Time	The individual must interact with the other child or children, not simply play nearby without conflict.
7. Plays cooperatively with more than one child for more than 5 minutes.	Play and Leisure Time	The individual must interact with the other child or children, not simply play nearby without conflict.
8. Continues playing with another child with little fussing when parent or caregiver leaves.	Play and Leisure Time	The individual must be aware of the parent's or caregiver's departure but not upset by it.
9. Shares toys or possessions when asked.	Play and Leisure Time	Willingness to share is important. The individual who shares when asked to by the parent or caregiver scores 2; the individual who shares only after resistance scores 0.
10. Plays with others with minimal supervision.	Play and Leisure Time	The individuals need not be in sight of an adult.
11. Uses common household objects or other objects for make-believe activities (for example, pretends a block is a car, a box is a house, etc.).	Play and Leisure Time	The individual must use the objects to represent something else.
12. Protects self by moving away from those who destroy things or cause injury (for example, those who bite, hit, throw things, pull hair, etc.).	Play and Leisure Time	
13. Plays simple make-believe activities with others (for example, plays dress-up, pretends to be superheroes, etc.).	Play and Leisure Time	
14. Seeks out others for play or companionship (for example, invites others home, goes to another's home, plays with others on the playground, etc.).	Play and Leisure Time	The individual must take the initiative to invite someone to play.
15. Takes turns when asked while playing games or sports.	Play and Leisure Time	
16. Plays informal, outdoor group games (for example, tag, jump rope, catch, etc.).	Play and Leisure Time	
17. Shares toys or possessions without being asked.	Play and Leisure Time	For example, if a friend asks to play with a toy belonging to the individual, the individual agrees without prompting by the parent or caregiver, or the individual offers a toy or possession to another.
18. Follows rules in simple games (relay races, spelling bees, electronic games, etc.).	Play and Leisure Time	Examples of game rules include not peeking in Hide-and-Seek and not looking at other people's cards in a card game.
19. Takes turns without being asked.	Play and Leisure Time	
20. Plays simple card or board game based only on chance (for example, Go Fish, Crazy Eights, Sorry™, etc.).	Play and Leisure Time	The individual may play with either an adult or child, but must not require help understanding the game.
21. Goes places with friends during the day with adult supervision (for example, to a shopping mall, park, community center, etc.).	Play and Leisure Time	
22. Asks permission before using objects belonging to or being used by another.	Play and Leisure Time	The individual must ask permission before attempting to use the object and wait for a response; the individual who asks while grabbing without waiting for the other's reply scores 0.
23. Refrains from entering group when nonverbal cues indicate that he or she is not welcome.	Play and Leisure Time	Knowing how to approach and enter a group is important. The individual must recognize when he or she is being ignored by group members or when their facial expressions, body language, or sudden silence indicates they do not want the individual to join them.
24. Plays simple games that require keeping score (for example, kickball, pickup basketball, etc.).	Play and Leisure Time	The game need not involve physical activity; any game in which points are accumulated is acceptable.

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ITEM	SUBDOMAIN	CRITERIA
25. Shows good sportsmanship (that is, follows rules, is not overly aggressive, congratulates other team on winning, and does not get mad when losing).	Play and Leisure Time	
26. Plays more than one board, card, or electronic game requiring skill and decision making (for example, Monopoly™, Cribbage, etc.).	Play and Leisure Time	Other examples include Rummy, Hearts, checkers, Chinese checkers, and chess. Electronic games requiring skill are also included.
27. Goes places with friends in evening with adult supervision (for example, to a concert, lecture, sporting event, movie, etc.).	Play and Leisure Time	
28. Follows rules in complex games or sports (for example, football, soccer, volleyball, etc.).	Play and Leisure Time	
29. Goes places with friends during the day without adult supervision (for example, to a shopping mall, park, community center, etc.).	Play and Leisure Time	An adult may provide transportation but may not remain with the individual after arrival. If the individual is permitted to go without supervision only in the immediate neighborhood, score 1. If an adult remains with the individual after arrival, score 0.
30. Plans fun activities with more than two things to be arranged (for example, a trip to a beach or park that requires planning transportation, food, recreational items, etc.).	Play and Leisure Time	If the individual must have permission to meet friends, score 0.
31. Goes places with friends in evening without adult supervision (for example, to a concert, lecture, sporting event, movie, etc.).	Play and Leisure Time	The friends may be of one sex or both sexes. The individual must not be accompanied by the caregiver or other designated adult, but an adult (e.g., a chaperon) who is responsible for the general conduct of the event may be present.
Domain: Socialization ***Subdomain: Coping Skills***		
1. Changes easily from one at-home activity to another.	Coping Skills	The individual does not resist change. For example, the child does not have a tantrum or refuse to stop an activity to have dinner or take a bath.
2. Says "thank you" when given something.	Coping Skills	The individual must say "thank you" without being reminded to score 2. If the individual must be prompted, score 1 for an implicit reminder (e.g., "What do you say?") and 0 for an explicit reminder (e.g., "Say thank you").
3. Changes behavior depending on how well he or she knows another person (for example, acts differently with family member than with stranger, etc.).	Coping Skills	For example, the individual is not overly friendly or physically affectionate to strangers.
4. Chews with mouth closed.	Coping Skills	The individual must generally chew with mouth closed without reminders to score 2.
5. Says "please" when asking for something.	Coping Skills	The individual must say "please" without being reminded to score 2. If the individual must be prompted, score 1 for an implicit reminder (e.g., "What do you say?") and 0 for an explicit reminder (e.g., "Say please").
6. Ends conversations appropriately (for example, says, "Good-bye"; "See you later"; etc.).	Coping Skills	The individual must end conversations with amenities such as "I'll be seeing you," "Nice talking to you," or some reference to a topic of the conversation. The individual who abruptly ends conversations or walks away scores 0.
7. Cleans or wipes face and hands during and/or after meals.	Coping Skills	If the individual cleans only face or only hands, score 1. If the individual uses a bib, score 0.
8. Responds appropriately to reasonable changes in routine (for example, refrains from complaining, etc.).	Coping Skills	The individual may express some disappointment or minor annoyance but does not complain excessively or start shouting or swearing.

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Scoring Criteria

ITEM	SUBDOMAIN	CRITERIA
9. Says that he or she is sorry for unintended mistakes (for example, bumping into someone, etc.).	Coping Skills	The individual must apologize without prompting to score 2.
10. Chooses not to taunt, tease, or bully.	Coping Skills	
11. Acts appropriately when introduced to strangers (for example, nods, smiles, shakes hands, greets them, etc.).	Coping Skills	For example, the individual says, "Hi, it's nice to meet you" or "How do you do?" If the individual is "too shy" to respond appropriately, score 0.
12. Changes voice level depending on location or situation (for example, in a library, during a movie or play, etc.).	Coping Skills	
13. Says he or she is sorry after hurting another's feelings.	Coping Skills	The individual must apologize without prompting to score 2.
14. Refrains from talking with food in mouth.	Coping Skills	To score 2, the individual must swallow food before speaking. If the individual consumes only liquid or soft foods, score 0.
15. Talks with others without interrupting or being rude.	Coping Skills	If the individual frequently disrupts the conversation or interjects with rude or unkind comments, score 0.
16. Accepts helpful suggestions or solutions from others.	Coping Skills	
17. Controls anger or hurt feelings when plans change for reason(s) that cannot be helped (for example, bad weather, car trouble, etc.).	Coping Skills	
18. Keeps secrets or confidences for longer than one day.	Coping Skills	If the individual must be reminded more than once not to tell a secret, score 0. If the individual does not understand what a secret is, score 0.
19. Says he or she is sorry after making unintentional mistakes or errors in judgment (for example, when unintentionally leaving someone out of a game, etc.).	Coping Skills	For example, the individual says, "I'm sorry, I didn't realize you wanted to play," "I'm sorry, I shouldn't have yelled at you."
20. Shows understanding that gentle teasing with family and friends can be a form of humor or affection.	Coping Skills	The individual does not become angry or upset when he or she is gently teased, and affectionately teases others without being mean or cruel.
21. Tells parent or caregiver about his or her plans (for example, what time he or she is leaving and returning, where he or she is going, etc.).	Coping Skills	A sense of responsibility in sharing plans so that others can make plans, or so they will not worry is important. If the individual asks for permission out of consideration for a request that is routinely granted (for example, "I'm going over to my friend's house for a while. I'll be back by five. Is that okay?"), score 2. If the individual must ask permission, score 1.
22. Chooses to avoid dangerous or risky activities (for example, jumping off high places, picking up a hitchhiker, driving recklessly, etc.).	Coping Skills	
23. Controls anger or hurt feelings when he or she does not get his or her way (for example, when not allowed to watch television or attend a party; when suggestion is rejected by friend or supervisor; etc.).	Coping Skills	For example, the individual does not cry, yell, or become excessively upset. The individual need not appear happy, however.
24. Follows through with arrangements (for example, if promises to meet someone, meets that person; etc.).	Coping Skills	
25. Stops or stays away from relationships or situations that are hurtful or dangerous (for example, being bullied or made fun of, being taken advantage of sexually or financially, etc.).	Coping Skills	The individual must recognize when he or she is being manipulated or being taken advantage of.
26. Controls anger or hurt feelings due to constructive criticism (for example, correction of misbehavior, discussion of test mark or grade, performance review, etc.).	Coping Skills	

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Scoring Criteria

ITEM	SUBDOMAIN	CRITERIA
27. Keeps secrets or confidences for as long as needed.	Coping Skills	The individual who usually says something like, "I shouldn't tell you this, but..." scores 0. If the individual does not understand what a secret is, score 0.
28. Thinks about what could happen before making decisions (for example, refrains from acting impulsively, thinks about important information, etc.).	Coping Skills	The decision made need not be the one the caregiver considers correct; the individual must simply give evidence of having considered each option and its consequences.
29. Is aware of potential danger and uses caution when encountering risky social situations (for example, binge drinking parties, Internet chat rooms, personal ads, etc.).	Coping Skills	Other examples include giving identifying information to a stranger, or leaving a party or event with a new acquaintance.
30. Shows respect for co-workers (for example, does not distract or interrupt others who are working, is on time for meetings, etc.).	Coping Skills	
Domain: Motor Skills ***Subdomain: Gross*** **Note:** The Motor Skills domain is for individuals 5:11:30 or under, and optional for older individuals for whom a motor deficit is suspected. See Chapters 4 and 5 in the manual for procedures for administering and scoring the Motor Skills domain for individuals 6:0:0 or older.		
1. Holds head erect for at least 15 seconds when held upright in parent's or caregiver's arms.	Gross	If the individual crawls or walks, score 2.
2. Sits supported (for example, in a chair, with pillows, etc.) for at least 1 minute.	Gross	The individual may be propped with pillows. If the individual crawls or walks, score 2.
3. Sits without support for at least 1 minute.	Gross	If the individual crawls or walks, score 2.
4. Creeps or moves on stomach across floor.	Gross	If the individual crawls or walks, score 2.
5. Sits without support for at least 10 minutes.	Gross	If the individual crawls or walks, score 2.
6. Raises self to sitting position and sits without support for at least 1 minute.	Gross	If the individual crawls or walks, score 2.
7. Crawls at least 5 feet on hands and knees, without stomach touching floor.	Gross	Score 2 only if the individual crawls at least five feet. If the individual can move on hands and knees but usually uses some lesser method, score 1. If the individual walks, score 2.
8. Pulls self to standing position.	Gross	The individual may stand by pulling on a table, railing, or other stable object. Score 0 if the individual requires assistance or stands by pulling on another person.
9. Crawls up stairs.	Gross	If the individual has demonstrated the skill, even though the use of stairs is usually restricted by gates or doors, score 2.
10. Takes at least two steps.	Gross	The caregiver may not assist the individual by holding his or her hands or waist, but may coach and encourage.
11. Stands alone for 1 to 3 minutes.	Gross	The individual must not hold on to a stable object or person.
12. Rolls ball while sitting.	Gross	The ball may be any size.
13. Climbs on and off low objects (for example, chair, step stool, slide, etc.).	Gross	If the individual climbed on low play equipment in the past but has outgrown this, score 2.
14. Crawls down stairs.	Gross	If the individual has demonstrated the skill, even though the use of stairs is usually restricted by gates or doors, score 2.
15. Stands for at least 5 minutes.	Gross	The individual must stand without support and without falling for 5 minutes to score 2.
16. Walks across room; may be unsteady and fall occasionally.	Gross	Score 2 even if the gait is unsteady and occasional falls occur. The individual who walks reasonably well but chooses to crawl some of the time scores a 1.

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Scoring Criteria

ITEM	SUBDOMAIN	CRITERIA
17. Throws ball.	Gross	The ball may be any size. The individual may throw the ball haphazardly and without regard to distance or direction, but there must be a sense that the individual is throwing the ball for a purpose. The individual who randomly throws things scores 0.
18. Walks to get around; does not need to hold on to anything.	Gross	The individual must walk steadily, without holding on to stable objects such as railings and furniture, to score 2.
19. Climbs on and off adult-sized chair.	Gross	The individual must do so unassisted to score 2.
20. Runs without falling; may be awkward and uncoordinated.	Gross	Score 2 even if the running is awkward and uncoordinated.
21. Walks up stairs, putting both feet on each step; may use railing.	Gross	If the individual puts hands but not knees on the steps, or if the caregiver assists, score 1.
22. Kicks ball.	Gross	The individual may kick the ball haphazardly and without regard to distance or direction, but he or she must kick without loosing his or her balance and falling down.
23. Runs smoothly without falling.	Gross	The individual's running must be well coordinated to score 2.
24. Walks down stairs, facing forward, putting both feet on each step; may use railing.	Gross	The individual may use a railing. If the caregiver assists, score 1.
25. Jumps with both feet off floor.	Gross	If the individual usually falls after jumping, score 1.
26. Throws ball of any size in specific direction.	Gross	Attempting to aim is more important than success; the individual who throws the ball toward the caregiver or a hoop but misses scores 2.
27. Catches beach ball-sized ball with both hands from a distance of 2 or 3 feet.	Gross	The person throwing the ball may prepare the individual by saying, "Ready?" or "Now watch the ball."
28. Walks up stairs, alternating feet; may use railing.	Gross	The individual may use a railing. If the individual puts hands but not knees on the steps, or if the caregiver assists, score 1.
29. Pedals tricycle or other three-wheeled toy for at least 6 feet. ***SCORING TIP:*** *You may mark "N/O" for No Opportunity if the individual does not have a tricycle or three-wheeled toy. However, if the individual has such a vehicle but does not ride it for any reason, including parent or caregiver does not think he or she is ready, mark "0."*	Gross	If the individual rode a tricycle or other three-wheeled vehicle in the past but has outgrown it, score 2. If the individual does not ride a three-wheeled vehicle only because none is available, score N/O.
30. Jumps or hops forward at least three times.	Gross	If the individual falls while jumping, score 0.
31. Hops on one foot at least once without falling; may hold on to something for balance.	Gross	If the individual falls, score 0.
32. Climbs on and off high objects (for example, jungle gym, 4-foot slide ladder, etc.).	Gross	Examples are monkey bars, jungle gyms, trees, and fences. The individual must voluntarily descend from the equipment (not fall off or be assisted), at least most of the time, to score 2. If the individual climbed on high play equipment in the past but has outgrown this, score 2. If the individual is not permitted to use high play equipment, score 0.
33. Walks down stairs, alternating feet; may use railing.	Gross	The individual must put only one foot on each step. The individual may use a railing.
34. Runs smoothly, with changes in speed and direction.	Gross	For example, the individual plays tag, and runs while attempting to catch a ball.

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Scoring Criteria

ITEM	SUBDOMAIN	CRITERIA
35. Rides bicycle with training wheels for at least 10 feet. ***SCORING TIP:*** *You may mark "N/O" for No Opportunity if the individual does not have a bicycle. However, if the individual has a bike but does not ride it for any reason, including parent or caregiver does not think he or she is ready, mark "0."*	Gross	
36. Catches beach-ball sized ball (from at least 6 feet away) with both hands.	Gross	
37. Hops forward on one foot with ease.	Gross	The individual must hop well enough to play hopscotch or a similar game.
38. Skips at least 5 feet.	Gross	
39. Catches tennis or baseball-sized ball (from at least 10 feet away), moving to catch it if necessary.	Gross	The individual may catch the ball with one or both hands to score 2.
40. Rides bicycle with no training wheels without falling. ***SCORING TIP:*** *You may mark "N/O" for No Opportunity if the individual does not have a bicycle. However, if the individual has a bike but does not ride it for any reason, including parent or caregiver does not think he or she is ready, mark "0."*	Gross	To score 2, the individual must mount and start without assistance. If the individual does not ride a bicycle only because none is available, score N/O.
Domain: Motor Skills ***Subdomain: Fine***		
1. Reaches for toy or object.	Fine	
2. Picks up small objects (no larger than 2 inches on any side); may use both hands.	Fine	
3. Moves object from one hand to the other.	Fine	If the individual usually drops the object before completing the transfer, score 0.
4. Squeezes squeaky toy or object.	Fine	If the individual played with squeaky toys in the past but has outgrown them, score 2. The individual may squeeze the toy or object with one or both hands. If the individual squeezes the object but not hard enough to make it squeak, score 1.
5. Picks up small object with thumb and fingers.	Fine	Dexterity is important; the individual who picks up objects with a fist scores 0.
6. Removes object (for example, a block or clothespin) from a container.	Fine	
7. Puts object (for example, a block or clothespin) into container.	Fine	
8. Turns pages of board, cloth, or paper book, one at a time.	Fine	
9. Stacks at least four small blocks or other small objects; stack must not fall.	Fine	Alignment of the stack does not have to be perfect, but the "tower" must stand.
10. Opens doors by turning doorknobs.	Fine	If the individual turns and pulls doorknobs but does not actually open doors because they are too heavy, score 0. If the individual is not tall enough to reach doorknobs, score 0.
11. Unwraps small objects (for example, gum or candy).	Fine	
12. Completes simple puzzle of at least two pieces or shapes.	Fine	A non-inset puzzle, such as a jigsaw puzzle, has no frame for each piece but may have an outside frame. Cues on the pieces must be used to work the puzzle.
13. Turns book or magazine pages one by one.	Fine	
14. Uses twisting hand-wrist motion (for example, winds up toy, screws/unscrews lid of jar, etc.).	Fine	If the individual drops the toy or jar lid while screwing or unscrewing the lid, score 0.
15. Holds pencil in proper position (not with fist) for writing or drawing.	Fine	The individual who holds the pencil in the fist scores 0.

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Scoring Criteria

ITEM	SUBDOMAIN	CRITERIA
16. Colors simple shapes; may color outside lines.	Fine	
17. Builds three-dimensional structures (for example, a house, bridge, vehicle, etc.) with at least five small blocks.	Fine	The structure (not just the blocks) must have height, width, and depth. The object must represent something, such as a car, house, or bridge, and the individual must label it as such. If the individual built with blocks in the past but has outgrown this, score 2.
18. Opens and closes scissors with one hand.	Fine	Cutting with the scissors is not necessary. The individual may use either children's or adults' scissors to score 2. If the individual is not permitted to use scissors, score 0.
19. Glues or pastes two or more pieces together (for example, for art or science projects, etc.).	Fine	
20. Uses tape to hold things together (for example, torn page, art project, etc.).	Fine	
21. Draws more than one recognizable form (for example, person, house, tree, etc.). ***SCORING TIP:*** *Mark a "2" if the individual draws two or more recognizable forms; mark a "1" if the individual draws one form; mark a "0" if the individual does not draw any recognizable forms.*	Fine	If the individual only traces forms, score 0.
22. Makes recognizable letters or numbers.	Fine	
23. Draws circle freehand while looking at example.	Fine	
24. Uses scissors to cut across paper along a straight line.	Fine	The individual must cut along the line fairly accurately to score 2. The individual may use either children's or adults' scissors to score 2. If the individual is not permitted to use scissors, score 0.
25. Colors simple shapes; colors inside the lines.	Fine	
26. Cuts out simple shapes (for example, circles, squares, rectangles, etc.).	Fine	
27. Uses eraser without tearing paper.	Fine	The eraser may be on a pencil or separate.
28. Draws square freehand while looking at example.	Fine	
29. Draws triangle freehand while looking at example.	Fine	
30. Ties knot.	Fine	
31. Draws straight line using a ruler or straightedge.	Fine	
32. Unlocks dead-bolt, key, or combination locks that require twisting. ***SCORING TIP:*** *You may mark "N/O" for No Opportunity if there are no dead-bolt, key, or combination locks in the home.*	Fine	Key locks may be on doors, trunks, diaries, or jewelry boxes. If the individual is not permitted to use keys, or is not tall enough to reach locks, score 0.
33. Cuts out complex shapes (for example, stars, animals, alphabet letters, etc.).	Fine	The cutting need not be perfect, and the individual may use either children's or adults' scissors to score 2. If the individual is not permitted to use scissors, score 0.
34. Uses keyboard, typewriter, or touch screen to type name or short words; may look at keys. SCORING TIP: You may mark "N/O" for No Opportunity if there is no computer in the home.	Fine	
35. Ties secure bow.	Fine	If the individual ties only a knot, or if the caregiver routinely performs the task for the individual, score 0.
36. Uses a keyboard to type up to 10 lines; may look at the keys. ***SCORING TIP:*** *You may mark "N/O" for No Opportunity if there is no computer in the home.*	Fine	

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Scoring Criteria

ITEM	SUBDOMAIN	CRITERIA
Maladaptive Behavior Index		
1. Is overly dependent (that is, clings to caregiver, teacher, brother, or sister).	**Internalizing**	For example, the individual clings excessively to the caregiver or is overly reluctant to leave the caregiver.
2. Avoids others and prefers to be alone.	**Internalizing**	For example, the individual avoids other people and spends most of the time alone.
3. Has eating difficulties (for example, eats too fast or too slowly, hoards food, overeats, refuses to eat, etc.).	**Internalizing**	For example, the individual overeats excessively, eats inedible things, or refuses to eat. If the individual only refuses a particular food item (e.g., spinach) but otherwise eats normally, score 0.
4. Has sleep difficulties (for example, sleepwalks, has frequent nightmares, sleeps significantly more or less than typical for his or her age).	**Internalizing**	For example, the individual sleepwalks, sleeps more or less than others of the same age, or has many nightmares.
5. Refuses to go to school or work because of fear, feelings of rejection or isolation, etc.	**Internalizing**	For example, the individual consistently says he or she is afraid to go to school or work, or says he or she can't go because no one likes him or her.
6. Is overly anxious or nervous.	**Internalizing**	If the individual is very often nervous, tense, or fearful, score 2.
7. Cries or laughs too easily.	**Internalizing**	If the individual cries or laughs more frequently or intensely than others of the same age, score 2.
8. Has poor eye contact (that is, does not look at or face others when speaking or being spoken to).	**Internalizing**	If the individual does not look at or face others when speaking or being spoken to, score 2.
9. Is sad for no clear reason.	**Internalizing**	For example, the individual cries a great deal or is generally sad for no apparent reason.
10. Avoids social interaction.	**Internalizing**	For example, the individual consistently stays away from others, preferring to be alone.
11. Lacks energy or interest in life.	**Internalizing**	For example, the individual refuses to participate in activities and does not seem to care about anything.
1. Is impulsive (that is, acts without thinking).	**Externalizing**	For example, the individual frequently does things without thinking.
2. Has temper tantrums.	**Externalizing**	For example, the individual screams, cries, kicks, or is verbally abusive.
3. Intentionally disobeys and defies those in authority.	**Externalizing**	
4. Taunts, teases, or bullies.	**Externalizing**	For example, the individual is more cruel than others of the same age.
5. Is inconsiderate or insensitive to others.	**Externalizing**	For example, the individual interrupts discussions, disrupts activities, or frequently shows off.
6. Lies, cheats, or steals.	**Externalizing**	For example, the individual says things that are not true or takes things that belong to others.
7. Is physically aggressive (for example, hits, kicks, bites, etc.).	**Externalizing**	For example, the individual gets into many fights or hits, bites, kicks, or scratches others.
8. Is stubborn or sullen.	**Externalizing**	For example, the individual sulks or is irritable at home, at school, or on the job.
9. Says embarrassing things or asks embarrassing questions in public (for example, "You're fat," or "What's that big red thing on your nose?").	**Externalizing**	
10. Behaves inappropriately at the urging of others.	**Externalizing**	

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Scoring Criteria

ITEM	SUBDOMAIN	CRITERIA
1. Sucks thumb or fingers.	Other	If the individual habitually sucks thumb or fingers, score 2.
2. Wets bed or must wear diapers at night.	Other	If the individual wears diapers at night, score 2.
3. Acts overly familiar with strangers (for example, holds hands, hugs, sits on lap, etc.).	Other	For example, the individual intentionally disobeys rules, refuses to do what is asked, or defies those in authority (e.g., caregiver, teachers, supervisors).
4. Bites fingernails.	Other	If the individual habitually bites fingernails, score 2.
5. Has tics (that is, involuntary blinking, twitching, head shaking, etc.).	Other	These involuntary movements may be described as "nervous movements" or "twitches."
6. Grinds teeth during the day or night.	Other	If the individual habitually grinds teeth, score 2.
7. Has a hard time paying attention.	Other	For example, the individual does not attend to television, games, or activities as long as others of the same age.
8. Is more active or restless than others of same age.	Other	For example, the individual does not sit still or is restless compared with others of the same age.
9. Uses school or work property (for example, telephone, Internet access, office supplies, etc.) for unapproved personal purposes.	Other	
10. Swears.	Other	For example, the individual swears or uses obscene or abusive language with people in authority (e.g., caregiver, teachers, supervisors).
11. Runs away (that is, missing for 24 hours or longer).	Other	If the individual has run away for brief periods more than five times in the past year, or has run away for more than one day at least twice in the past year, score 2.
12. Is truant from school or work.	Other	If the individual has missed school or work more than twice in the past year without the permission of the caregiver or a proper excuse, score 2. If the individual is too young for school or work, score 0.
13. Ignores or doesn't pay attention to others around him or her.	Other	
14. Uses money or gifts to "buy" affection.	Other	
15. Uses alcohol or illegal drugs during the school or work day.	Other	

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Scoring Criteria

ITEM	SUBDOMAIN	CRITERIA
Maladaptive Behavior Critical Items		
1. Engages in inappropriate sexual behavior (for example, exposes self, masturbates in public, makes improper sexual advances, etc.).	**Critical Items**	For example, the individual exposes body or masturbates in public or makes sexual advances.
2. Is obsessed with objects or activities (for example, constantly repeats words or phrases, is preoccupied with mechanical objects, etc.).	**Critical Items**	For example, the individual constantly repeats words or phrases or is preoccupied with mechanical objects such as vacuum cleaners, fans, or running faucets.
3. Expresses thoughts that do not make sense (for example, talks about hearing voices, seems delusional, etc.).	**Critical Items**	For example, the individual says thoughts are controlled by a machine or stranger, or says he or she hears voices or is someone else (e.g., a person from another planet).
4. Has strange habits or ways (for example, makes repetitive noises, odd hand movements, etc.).	**Critical Items**	For example, the individual makes peculiar repetitive noises or gestures, removes clothing at inappropriate times, eats inedible things or puts everything in mouth, or plays with or smears feces.
5. Consistently prefers objects to people (for example, pays more attention to objects than to people, etc.).	**Critical Items**	
6. Displays behaviors that cause injury to self (for example, bangs head, hits or bites self, tears at skin, etc.).	**Critical Items**	For example, the individual bangs head or other parts of body against walls or furniture, hits or bites self, tears at skin, or puts fingers into a flame.
7. Destroys own or another's possessions on purpose.	**Critical Items**	If the individual only accidentally breaks a toy, dish, etc., score 0.
8. Uses bizarre speech (for example, has conversations with self in public, speaks in phrases or sentences that have no meaning, repeats same word or phrase over and over, etc.).	**Critical Items**	For example, the individual exhibits stereotypic speech patterns (repeats the same word or phrase), talks to self in public, or speaks meaningless phrases or sentences.
9. Is unaware of what is happening around him or her (for example, seems to be in a "fog," stares blankly, etc.).	**Critical Items**	For example, the individual seems to be "in a fog" much of the time or stares blankly.
10. Rocks back and forth repeatedly.	**Critical Items**	If the rocking is repetitive and occurs frequently, score 2.
11. Is unusually fearful of ordinary sounds, objects, or situations.	**Critical Items**	
12. Remembers odd information in detail years later.	**Critical Items**	
13. Is unable to complete a normal school or work day because of chronic pain or fatigue.	**Critical Items**	
14. Is unable to complete a normal school or work day because of psychological symptoms.	**Critical Items**	